THEMES IN ARCHAEOLOGY

The Archaeology of Art

Materials, Practices, Affects

ANDREW MEIRION JONES / ANDREW COCHRANE



ROUTLEDGE

THE ARCHAEOLOGY OF ART

How can archaeologists interpret ancient art and images if they do not treat them as symbols or signifiers of identity?

Traditional approaches to the archaeology of art have borrowed from the history of art by focusing on iconography, meaning, communication and identity. However, understanding these fields requires a detailed knowledge of historical or ethnographic context unavailable to many archaeologists. Rather than playing to archaeology's weaknesses, the authors of this volume argue that an archaeology of art should instead play to its strength: the material character of archaeological evidence.

The Archaeology of Art offers a range of case studies examining rock art, figurines, beadwork, murals, coffin decorations, sculpture and architecture from around the world to develop an understanding of the affective and effective nature of ancient art and imagery. It analyses a series of material-based practices, from gesture and improvisation to miniaturisation and gigantism, assembly and disassembly and the use of distinctions in colour, enabling key concepts such as style and meaning to be re-imagined as affective practices. Recasting the archaeology of art as the study of affects offers a new prospectus for the study of ancient art and imagery

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Andrew Meirion Jones and Andrew Cochrane

THE ARCHAEOLOGY OF TIME
Gavin Lucas

THE ARCHAEOLOGY OF PERSONHOOD
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Chris Fowler

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To
AMJ: Hannah Sackett, Ian Dawson and Louisa Minkin
AC: Rafe and Lily

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PREFACE

Several years ago, the authors edited a book on Neolithic imagery, *Visualising the Neolithic* (Cochrane and Jones 2012). Although the book was reasonably well received, we were never quite happy with the publication. We had set out to explore Neolithic art in process-based terms, however, most of the contributors to the book (derived from a day conference organised by the Neolithic Studies Group in the British Museum) resolutely stuck with broadly semiotic or representational accounts of Neolithic images. There was a substantial disjuncture then between our introductory comments and the outlook of some of our contributors; the volume did not have the impact we had hoped for. Despite this we still felt that our materially focused, process-based approach had some merit. For this reason, we have expanded our arguments for a book length treatment. This volume is the result.

One of the authors has mainly worked on rock art and decorated Neolithic artefacts (AMJ), the other (AC) has project-curated several exhibitions relating to prehistoric figurines, including *unearthed* (Sainsbury's Institute of Visual Arts, Norwich 2010) and *Ice Age Art* (British Museum, London 2013). The content of this book reflects our interests and pre-occupations, though we discuss much more than rock art and figurines here. Our coverage of art is expansive, but not exhaustive. While we have attempted to discuss art traditions from several different periods from the Palaeolithic onwards, we have also tried to provide widespread geographical coverage, including case studies from Europe, Asia, the Americas (North, South and Central), Australia and North Africa. Much of the book's arguments are exemplified by case studies; for that reason, the selection of case studies was based on the kinds of arguments we wished to make.

Mary Douglas once discussed the phenomenon of 'Bongo-Bongoism' (1970) that pervaded anthropological discussions. Here, any proposition could be countered, by an exception located elsewhere, with the retort: 'This is all very well, but it doesn't apply to the Bongo-Bongo' (1970, xxxv). Books on art face similar challenges. We decided from the outset that we could not and would not include every artwork ever created, and could not discuss every conceivable art practice. We were also aware that the examples we chose might appeal to some while

frustrate others. Besides, we feel we do not need to write about every example of X to say something interesting about X.

Over the course of writing this book, the arts have become ever more beleaguered. Countries including the USA, UK and Brazil have made swingeing cuts to arts funding, and worse, reduced the provision of arts education at school level for a narrower focus on STEM subjects (Science, Technology, Engineering, Maths), effectively cutting off creative expression at its source. All this despite the huge impact that the arts have on the economies of these countries (Henley 2016). Can we imagine Brazil without Bossa Nova music and the art/music movement known as Tropicalia? Without the impact of Brazilian artists on Modern Art (Locke 2014)? Can we imagine the USA without the Blues, Country, Rock 'n' Roll, Jazz, Hip-Hop? Without Hollywood movies? Can we imagine the UK without its vibrant music scene (it is currently the second largest exporter of pop music in the world, after the USA)? Can we imagine London without West End theatres, or opera at Covent Garden? Has it escaped anyone's notice that since the late 1990s, London has been one of the major centres of the global art scene? The arts appear to have been side-lined ideologically: a supplement, an additional extra, that can be ill afforded in times of global austerity. Recently, the UK government has chosen to axe many of the subjects on which this book depends. A level (Advanced level) qualifications for pre-university admission in Art History, Anthropology and Archaeology currently face the executioner. At the time of writing, Art History has been given a stay of execution, though decisions are awaiting Anthropology and Archaeology. The ideas of political decision makers appear to closely resonate with the views of Plato's *Republic* (touched on in Chapter 9 of this book). It is time to change how we think about the arts. Rather than viewing the arts as epiphenomenal, one of the arguments of this book is that the arts have always been materially integrated with other aspects of life.

Although we have been able to discuss ideas between ourselves during the writing of this book, we have been further encouraged in our arguments by a diverse range of colleagues including: Ben Alberti, Lara Bacelar Alves, Ing-Marie Back Danielsson, Jill Cook, Rachel Crellin, Marta Díaz-Guardamino, Chris Fowler, Ingrid Fuglestvedt, Joakim Goldhahn, Simon Kaner, Antti Lahelma, Gavin Lucas, Jan Magne Gjerde, David Morris, David Robinson, Ian Russell, Jeremy Tanner, Silvia Tomásková and James Whitley. We would especially like to thank Louise Revell (for her advice on Roman mosaic studies) and Hannah Sackett, Ben Alberti and Ing-Marie Back Danielsson (for helpful comments on some of the draft chapters). Two babies were born during the writing of this book (Rafe and Lily); AC would like to thank the grandparents for their continued support, and his beautiful wife Lucy. We would like to thank Matt Gibbons and Molly Marler at Routledge for all their help in the long slow process of acquiring images for this book.

We would also like to thank colleagues across the world who generously supplied images for publication in this book (the vast majority given free of charge). This is greatly appreciated. We would especially like to thank Tsunaki Kuwashima for his wonderful cover image.

AMJ has also benefited from a Leverhulme Trust award (RPG-2014–193) for the *Making a Mark* project. Some of the results of this project are discussed in Chapter 10.

One of the arguments of this book is that archaeologists need to think a lot more like artists, and this viewpoint has developed through collaboration with colleagues in fine art and performance art, particularly Ian Dawson, Louisa Minkin, Liz Wright and Shaun Caton. Collaboration with them has opened our eyes to new ways of approaching the matter of art. We hope they enjoy what we have written.

1

EXCAVATING ART

Andrew Meirion Jones

Can one make works that are not works of 'art' ?
Marcel Duchamp 1913

From now to the end of consciousness, we are stuck with the task of defending art.
Susan Sontag 1964

Around 7000 years ago, a person clings to a steep sloping rock at Vingen, deep in the west Norwegian fjords. Overshadowed by the immense peak of Hornelen, they are carving the image of a deer into the rock surface (Figure 1.1). Preparations for carving this image have taken some time; they involved quarrying a special stone from the nearby quarry at Stakaneset, fashioning it into a tool, and then sailing down the fjord to carve the image. The carved deer only measures around 20cm in length, and in this immense landscape is difficult to see from any distance. It joins many other images of deer (a herd?) carved at the same spot. Why go to all this trouble to make an image that is difficult to see, and why do this repeatedly?

Over 5000 years ago on the east coast of Ireland, where the Boyne river bends, a series of stone and turf structures are being built to hold the dead of the community. Materials for building are gathered from near and far to be used in the structures. After the stones are manoeuvred into position, they are carved with sinuous spiralling images. As the structure is enlarged, new stones are carved with similar images. Some of these are visible on the outside, but a great deal of them are built into the structure of the monument and will not be seen again until the site of Newgrange is excavated in the mid twentieth century (Figure 1.2). Why is it important to carve stones used in these burial structures, and why should some of these carvings be buried deep within the buildings, invisible to the community who made them?

Over 5500 years ago at Chobonaino on the east coast of southern Hokkaido, Japan, a pit was being dug to receive a human body. Placed alongside the body was a small jade pendant and a remarkable clay human sculpture around half a metre in height (Figure 1.3). The figurine was hollow and made in separate



Figure 1.1 Image of a deer carved at Vingen, Norway. Photo Copyright: Trond Lødøen

sections; the legs as balls of clay, the torso with slabs of clay, and the head with finger impressions into a ball of clay. With the exception of its midriff, intricate cord impressions or lines of ribbed relief cover its surface. The figurine is human-like, maybe a male with a beard, and it is hard to tell whether the figure is asleep, awake, alive or dead. Why was this large ambiguous and hollow sculpture made, why was it placed in the grave, and what did it contain? Was it used for pouring liquid, sand, or some other less material substance?

In the early AD 300s, probably around AD 335–355, the owner of a villa at Hinton St. Mary, Dorset, England wished to embellish the decoration of their homestead. A mosaic was ordered to be laid in a central room of the building (Figure 1.4). The local mosaicists drew on a rich tradition of mosaic patterns for their design, which was laid out in individual tesserae (small coloured stone tiles). At Hinton St. Mary, they chose the bust of a male for the central motif clothed in a *tunica* and *pallium*. Behind the head of this figure, they laid out a curious motif known as a Chi Rho. Central busts in mosaic designs were often reserved for figures from mythology, such as Orpheus. Yet this bust and its motif were new. The clothing and Chi Rho motif suggest the figure was of Christ and marked out the owners of the villa as belonging to a new religious tradition – Christianity. Why was this design laid on the floor of the villa? Who was it intended for?

Just after AD 500 at Monte Albán, valley of Oaxaca, Mexico, a patio floor was laid down over an earlier tomb structure. At a slightly later stage, someone

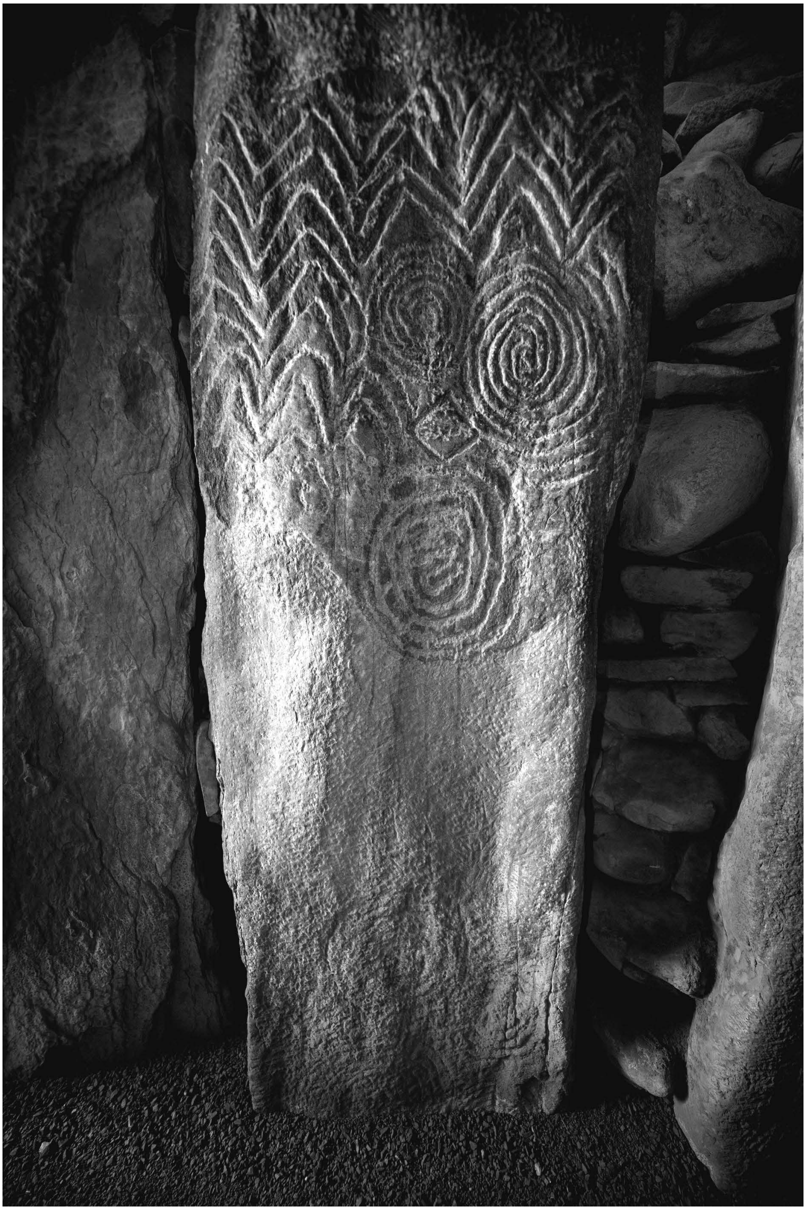


Figure 1.2 Image of passage tomb art from Newgrange, Ireland. Photo Copyright: Ken Williams

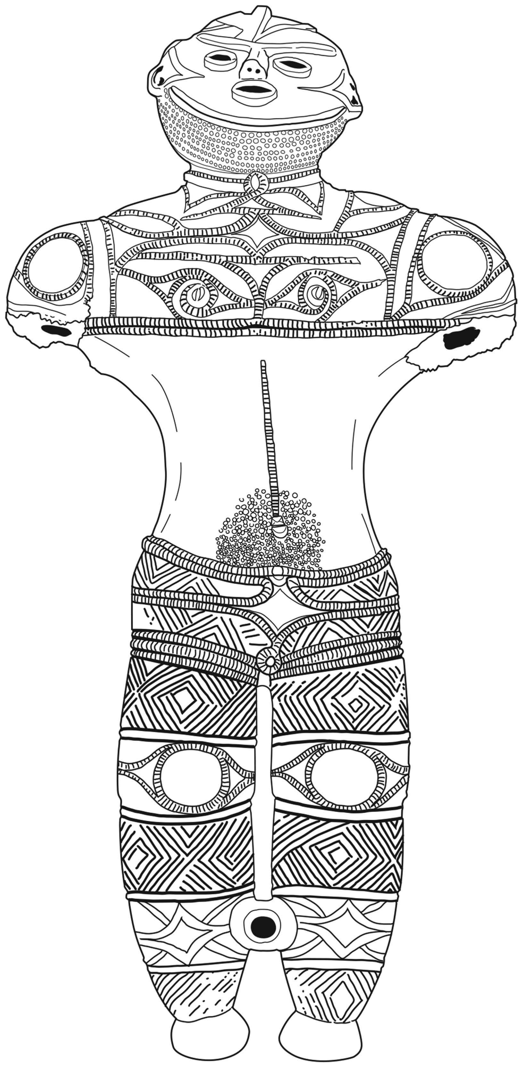


Figure 1.3 The Chobonaino dogū, Hokkaido, Japan. Image Copyright: Doug Bailey

cut a pit through the patio floor to arrange more than a dozen figurines in a scene (Figure 1.5). Five of the larger figurines with elaborate headdresses hold what may be depictions of mirrors (of obsidian or magnetite). Some of the smaller figurines in the scene seem to be singing or chanting. The figurines are all made of clay, but two other objects of stone accompany them – a small step pyramid and a funerary mask. Why are these figurines deposited in a pit cut into an earlier



Figure 1.4 The Hinton St. Mary Mosaic, Dorset, England. Photo Copyright: Trustees of the British Museum

tomb structure? Why is there such a variety of figurines; what is the significance of the different materials – clay and stone – used in the assemblage? What were the figurines intended to do? Why were they so carefully arranged?

Five examples of people in the past making images or sculptures, laying mosaic pavements, displaying, assembling, destroying or depositing groups of spectacular items. Making and assembling. Impact and display. Disassembly and destruction. These are all themes that will be explored in this book as we look at the role that images play in the lives of people in the past.

As the examples above show, art and imagery can be used in a variety of ways, and can stimulate a variety of things. The use of images also changes over time from prehistory to the post-Medieval period. The study of art and imagery from the past can therefore provide unparalleled access to the lives of past people; they



Figure 1.5 Figurine from Monte Albán, Mexico. Photo Copyright: Alamy Images

are an important source of information for archaeologists. Yet, we must be wary: we cannot 'read' art and images directly; art and images are slippery and difficult to pin down. This book will look at various strategies we might use to help us understand art and images in the archaeological record.

We have immediately slipped between using the terms 'art' and 'images'. As a rule of thumb, in this book we will discuss 'art' in the sense used by the ancient Greeks (*ars*), as a way of doing something, as well as the products of that way of

working. To define 'images' we refer to W.J.T. Mitchell's (2005, xiii–xiv) definition: images are 'any likeness, figure, motif, or form that appears in some medium or other'.

Probably the slipperiest question of all is the most fundamental: how do we define 'art'? How do we study art? We need to think about this now before we go any further. To help us we will recruit scholars from other disciplines, including art history and anthropology, who have considered such questions in depth. We will assess how useful their approaches are for the study of art and imagery in the deep past.

Art history and its origins

To understand how art historians have dealt with the question of art, we need to consider the history of the subject. In fact, the history of art and the study of archaeological art are closely intertwined from the outset, as one of the earliest – if not the first – work of art history is Johan Joachim Winckelmann's *History of Ancient Art*, published in Dresden, Germany in 1764. Winckelmann is important as he shifted the discussion of art history away from the chronicle of artists' lives and commissions (Giorgio Vasari's *Lives of the Artists* – published 1550 – can lay claim to be another early art historical text) to a new level entirely. He pioneered systematic stylistic analysis, historical contextualisation and iconographical analysis (Davis 1996, 261).

Winckelmann's approach treats art as a universal (he sees art as a timeless and unchanging category); he regards Greek imagery as art in a relatively uncomplicated fashion. Since these early beginnings, art historians, ancient historians and classical archaeologists have been arguing about this point. Michael Squire (2010, 133) puts this well when he asks:

> To what extent can we talk about the process of making, viewing and writing about images in classical antiquity as 'art history'? Is it justified to discuss 'art' as art in the first place? And if modern systems of 'the arts' are anachronistic, what language should be used to analyze the qualities and experiences associated with viewing images – or indeed, responding to other media – in ancient Greek and Roman historical perspective?

One prominent perspective is that of Paul Oskar Kristeller, who published two essays on 'the modern system of the arts' between 1951 and 1952 (see Kristeller 1990). Kristeller argues that modern concepts of 'Fine Arts', first conceived in the Enlightenment (the period in the eighteenth century when a belief in reason, freedom of thought and the value of science first arose), do not apply to antiquity or to any culture before the eighteenth century. This view has drawn criticism from a variety of scholars (Neer 2010), while others have gone further and have argued that the critical shift in the emergence of 'art' begins not in the Enlightenment, but in the Renaissance (Belting 1994).

One of the problems with these debates is the close association between modern ways of thinking about the arts and the origins of art history itself, which descends directly from the study of Greco-Roman materials. As we have seen, Winckelmann instigated the study of art history with an analysis of Greek figures, while the roots of the philosophy of art lie in Alexander Gottlieb Baumgarten's description of aesthetics, whose origins he sought in ancient Greek etymology and language. The definitions of art, and the language used to describe art, are so closely integrated with classical antiquity it is difficult to distinguish them.

One route out of this impasse is to borrow an approach derived from a different discipline, such as sociology. Jeremy Tanner (2006) has done this in his book, *The Invention of Art History in Ancient Greece: Religion, society and artistic rationalisation*. Tanner's approach aims to overcome the distinction between scholars who emphasise the historical specificity of art, and those who regard art as a universal concept. He examines the chronological development within antiquity, looking especially at shifts in knowledge occurring from the fourth to third centuries BC, and provides a social, political and intellectual history of image-making in antiquity. By taking a sociological perspective – drawing on key figures in sociology such as Max Weber and Talcott Parsons – he examines the 'expressive symbolism' deployed in antiquity (see Tanner 1992; 2006, 20–21). An 'expressive symbol is any act or object which stands for the feelings or attitudes of one person to another', such as the bonds of love between mother and child (see Tanner 2006, 20). He also examines the institutional logic, or 'rationalisation', of arts and artists in ancient society, following Max Weber's analysis of the rationalisation of different spheres of society (see Tanner 2006; 2010). In 'the case of art, rationalisation processes, can be relevant to reflective thought about the means of achieving specific aesthetic-expressive ends . . . and to the goals and purposes of artistic production and expression' (Tanner 2006, 22).

By utilising a sociological approach, he attempts to bridge the gap between Greco-Roman high culture and modern Western high culture. He argues that each 'share certain structural characteristics – the insistence on an extensive formal aesthetic vocabulary, a knowledge of artists' names and of the history of the development of styles' (Tanner 2010, 273) as synonymous with a cultivated engagement with art. They differ, though, in terms of the character of aesthetic sensibility.

Through the application of sociological method, Tanner argues that we are able to appreciate the differences between modern and ancient forms of art. This approach has similarities to recent debates in anthropology.

The anthropology of art

Art historians and classical archaeologists have debated the extent to which ancient art can be analysed in the modern era. This is a debate about the cross-cultural applicability of the category we call 'art'. This is an issue that is especially familiar to anthropologists who attempt to study 'art' from cultures very different to the contemporary West.

The scholarly foundations of art history lie in the eighteenth century; while the scholarly foundations of anthropology are much later during the nineteenth century. Anthropologists have long been interested in arts and material culture, as is evident from the extensive collections of ethnographic objects in major museums across Europe and North America. However this early collecting behaviour – which lies in nineteenth-century anthropology's impulse to systematise, classify and order humankind – is now a source of some embarrassment, and it is only in the last few decades that an interest in art and material culture has been revived and intellectually rehabilitated (Miller 1983; Miller and Tilley 1996; Hicks and Beaudry 2010; Tilley et al. 2006).

We should also recall that these collections of ethnographic art – both in museums and the marketplace – had an important impact on the development of Western art movements from Romanticism, to Impressionism, Fauvism and Cubism. Perhaps the most celebrated of these is Pablo Picasso's encounter with African sculpture around 1905. The nature of this interchange between Western artists and ethnographic art is still a major area of debate in anthropology (Rubin 1984; Price 1989; Schneider and Wright 2006; Vogel 1988).

The systematic study of art in anthropology is fairly recent, and an important early text is Franz Boas' *Primitive Art*, first published in Oslo, Norway in 1927. Boas (1955 [1927]) analyses art in terms that would be familiar to art historians, including a discussion of the formal elements in art, style, representation and symbolism. He offers an expansive definition of art, and includes a discussion of literature, music and dance.

Formal or systematic approaches to art have been an important feature of the anthropology of art since the revolution in thinking heralded by structuralism. Structuralism was an intellectual movement advocated by the French anthropologist Claude Lévi-Strauss during the 1950s and 1960s (e.g. Lévi-Strauss 1963; 1966); it had an enormous impact on academic thinking during the twentieth century. Lévi-Strauss identified systematic structures in human thought; social actions were the outside manifestation of these cognitive structures. Lévi-Strauss borrowed his understanding of cognitive structures from the structural linguistics of the Swiss linguist Ferdinand de Saussure (Saussure 1959) and from the semiotic theories of Prague-based linguist Roman Jakobson (e.g. Jakobson 1962).

Structural linguistics argues that language is composed of words with an arbitrary relationship to the real-world objects that they signify (thus the word 'dog' is used in English to signify specimens of the canine species, while in other European languages the word 'chien', 'hund' or 'perro' is used – the precise word used is an arbitrary convention of language). The meaning of each linguistic sign (or word) is determined by its position in the sentence, or in the language as a whole.

Jakobson's theory of semiotics (the study of signs) is also concerned with communication. Consider messages being sent between two people, sender and receiver. In order that the message is understood, it must refer in some way to a reality that both sender and receiver comprehend. This reality would be the 'context' of the message. It must also be in a code that the sender and receiver both

understand as intelligible. The key point of Jakobson's theory of communication is that signs are primarily communicative and relate to communication as a culturally specific process.

Lévi-Strauss developed the ideas of Saussure and Jakobson in anthropology in two directions, in the analysis of kinship systems and the analysis of myths. In each case, the meaning of cultural signs is determined by their position in the cultural system. Furthermore, these meanings tend to work as a series of binary oppositions.

Anthropologists of art rapidly adopted structuralism (Lévi-Strauss 1963; Forge 1973; Munn 1973; Layton 1991; Morphy 1991, Taylor 1996). For example, Nancy Munn's classic study of Walbiri (or Walpiri) iconography in western central Australia examined the component parts, the individual graphic signs that make up the art, as a clue to the overall meaning of distinct paintings. The position and relationship of certain graphic elements (or signs) like circles and lines provided an understanding of the symbolism and meaning of the painting. In the case of Walbiri iconography, circles and lines were argued to represent components of Walbiri cosmology, a cosmology focused on paths of movement (lines) between camps or waterholes (circles). These approaches provide anthropologists with clues about the meaning and significance of art, but they say less about the experience of art; to consider that we need to turn to aesthetics. Like art historians and classical archaeologists, anthropologists have also been interested in thinking about aesthetic experience.

Discussions about the cross-cultural character of anthropological art are an important feature of the anthropology of art (Morphy 2006; Coote and Shelton 1992), and the topic of cross-cultural aesthetics has been hotly debated (Weiner et al. 1996; Gell 1998). Some anthropologists have claimed that some aesthetic effects – such as shininess, symmetry and asymmetry – are perceived universally; others have argued for understanding aesthetics according to the judgement regimes of specific cultures. Yet others have argued that the study of aesthetics in anthropology is redundant and misplaced.

Howard Morphy (1992) has argued for the cross-cultural aesthetic significance of a particular feature of the art of the Yolngu, a group of Aboriginal Australian artists who live in north-east Arnhem Land, a coastal area of north Australia. The Yolngu paint a particular cross-hatched design they describe as *bir'yun*, or shimmering with ancestral power. Morphy (1992, 202) hypothesises that this particular cross-hatched shimmering effect:

> operates cross-culturally. Its impact may be modified by environmental factors, by individual and cultural experience of different visual systems; the way it is experienced may vary on an individual basis according to certain neurophysiological factors; but basically it is an effect which transcends particular cultural contexts.

Morphy makes the case then for some aspects of aesthetics as universals.

In a well-known essay, Robert Fariss Thompson (1973) undertook extensive research into the art criticism and aesthetic values of the Yoruba people of Nigeria. He highlighted a series of aspects of sculpture that were appreciated by Yoruba people, including amongst others hypermimesis (the idea of a not-too-direct copy of the subject of the sculpture), excessive abstraction, shining smoothness and pleasing angularity. Seen as a whole, the Yoruba aesthetic is 'not only a constellation of refinements. It is also an exciting mean, vividness cast into equilibrium' (Fariss Thompson 1973, 453). Fariss Thompson feels he has isolated an indigenous way of seeing, a systemic system of aesthetic evaluation. His analysis 'enables non-Yoruba to look at the works from a Yoruba perspective, and to see and evaluate them on that basis rather than in terms of the aesthetic system of their own society' (Morphy and Perkins 2006, 239–40). Farris Thompson argues for comprehending aesthetics according to specific cultural regimes of judgement.

Alfred Gell (1992b; 1998) argues that anthropologists should not attempt to study aesthetics. Instead anthropologists should take an attitude 'of resolute indifference towards the aesthetic value of works of art – the aesthetic value that they have, either indigenously, or from the standpoint of universal aestheticism' (Gell 1992b, 42). This is because Gell (1998, 5–6) believes that artworks are better analysed as parts of a social network: '"Aesthetic properties" cannot be abstracted, anthropologically, from the social processes surrounding the deployment of candidate "art objects" in specific social settings.' Instead he develops a framework for the analysis of art as part of a social network (he describes this as 'the art nexus') that includes the prototype (the thing reproduced in the artwork), the index (the artwork), the artist, and the recipient (who commissions or views the artwork). Gell is more concerned with understanding the technical skill involved in art, and the visual impact that artworks have on their viewers.

Anthropologists have devised methods for the analysis of meaning in the art of other cultures, while the cross-cultural analysis of aesthetics remains an area of debate and disagreement. These disagreements arise partly because anthropologists are attempting the difficult task of analysing art from other cultural backgrounds. Should we expect more agreement from scholars who study art in contemporary culture? To find out we will turn now to philosophers of art.

The philosophy of art: the artworld

The philosophy of art is a vast area of study, comprising the bulk of scholarship on art. We will meet various philosophers of art over the course of this book. Here we focus on definitions of art, and the concept of the 'artworld'.

One of the reasons that art is so difficult to define is that it is constantly undergoing change. This is nowhere more obvious than for the modern art of the early years of the twentieth century, and particularly the art of Marcel Duchamp. The impact of Duchamp's work was so great that artists, and those involved in the art scene, routinely speak of much of twentieth-century art as being post-Duchampian: what counted as art differed after the work of Duchamp.

Duchamp had a playful attitude to art, and was constantly pushing the boundaries of what was possible (Duchamp 1973). One of the lasting impacts he made was to introduce the concept of the 'readymade' into art, most famously exhibiting a commercially produced porcelain urinal signed with his pseudonymous signature 'R. Mutt' in 1917. Could this readymade object be counted as art?

Over time the 'readymade', the 'multiple' (multiple image or object) and the *objet trouve* (found object) became accepted as common and staple practices by artists (though there are subtle differences in these practices). If we are to accept these kinds of things as art, then how do we define the artwork philosophically? Alfred Gell (1999a, 187) poses this question: when is a fabricated object a 'work of art', and when is it something less dignified, a 'mere artefact'? These kinds of questions taxed philosophers like George Dickie (1974) and Arthur Danto (1964). Troubled by Andy Warhol's famous 'Brillo boxes' – three-dimensional sculptures painted to mimic boxes of Brillo washing powder – Danto wished to understand how these objects could be considered as art as they visibly resembled manufactured products. Danto argued that there were no characteristics that an artwork could have that would distinguish them from the manufactured product. Instead artworks could only be distinguished by their context, by their symbolic signification and their interpretation as objects displayed in art galleries; they are components of the 'artworld'. They are considered as art, because the artworld interprets them as art. For Dickie (1974) it was precisely this sociological interpretation of artworks that counted.

Untroubled by cross-cultural analysis, some philosophers of art have sought to define art in sociological terms. By looking at sociology and interpretation they could examine how people arrive at a definition of art that is widely accepted and comes to have social consensus.

The archaeology of art: problems and ways forward

We have now surveyed several different disciplines that deal with the study of art, including classical art history, the anthropology of art and the philosophy of art. A number of themes have arisen from this survey: the analysis of style; the study of aesthetics; and the analysis of meaning as key components of the study of art; institutional definitions of art. Without developing their own methods for the study of art, archaeologists have tended to adopt these approaches as the proper way to study art. We argue that simply adopting these approaches in archaeology is unhelpful, and our aim is to chart a fresh prospectus for the study of archaeological art in this book.

Above we have looked at various approaches by a number of scholars to understanding the reception of art. Tanner (2006) examines the institutional rationalisation of art in ancient society; Morphy (1991) and colleagues examine anthropological art in terms of their meaningful context; Danto (1964) and Dickie (1974) offer an institutional theory of art as a component of the artworld. In each of these cases, the artwork is set within its institutional, sociological

or anthropological context. There is nothing immediately wrong with these approaches, though the key problem is that these approaches are very difficult to apply in a prehistoric context where there is the lack of an obvious sociological context.

Richard Neer (2010, 181), discussing the definition of art in classical antiquity, remarks: 'there is something undisciplined, even deeply crazy, about the idea that we can make meaningful statements about lumps of stone and clay that were shaped twenty-five centuries ago'. Only twenty-five centuries? What if we wish to understand 'lumps of stone and clay' from the beginnings of prehistory twenty-five millennia ago? We have two options here: 1) Give up, because the task is too difficult, and we lack sufficient data, or 2) Devise new methods of examining artworks that do not solely rely on the discussion of aesthetics or meaning. We emphatically choose to take option 2, and the remainder of this book will explain how we think this is possible. Our aim is to develop an approach to art that is equally applicable to the study of the earliest art and imagery in the Palaeolithic, and the study of art and imagery in classical Greek, classic Maya or other historical periods.

As already stated, sociological accounts of art are very difficult to apply to prehistoric art as we lack any sense of sociological context. Do we fare any better with the analysis of meaning? Can we learn anything from the anthropology of art? Archaeologists and social anthropologists have a long history of misunderstanding each other's disciplines (Gosden 1999; Garrow and Yarrow 2010). The bruising encounters between social anthropologists and archaeologists are now the stuff of legend; and many of these encounters have been decisively 'won' by social anthropologists to the chagrin of archaeologists. Many of the misunderstandings also arise from the perception of the poor artefactual data set available to archaeologists compared to the rich ethnographic data set available to social anthropology. Nowhere is this misunderstanding starker than with the study of art. Here is a particularly eye-watering example from the recent literature:

> When archaeologists deal with artefacts that have survived their makers and users too long for a cultural legacy to be identified, let alone for them to be questioned about it, and especially in the absence of legible texts, interpretation depends upon drawing analogies with more familiar and better documented cultural traditions, including the archaeologists' own. At a simple level, this is little more than guessing that a blackened ceramic hemisphere was a cooking pot, that a shaped and sharpened piece of hard stone was an axe, or that a flattened lump of gold stamped with distinctive designs was used as a standard of value for exchange as a coin. But when artefacts have less obvious technical purposes and more apparently symbolic and aesthetic ones, the analogies drawn to understand them become more speculative.
>
> (Burt 2013, 70)

This quote could only have been written by a social anthropologist with an abiding interest in meaning and symbolism. Apart from the fact that some anthropologists seem to lack any sense of the physical properties of the material world (it is quite easy to demonstrate through practical experimentation and scientific analysis that pots are pots and axes are axes, while coins are historically attested), what do we learn from this? Notably any sense that can be made of objects is – for some social anthropologists – solely through textual description or the testimony of ethnographic informants, and the study of the non-technical (i.e. art) is purely the analysis of the symbolic and aesthetic.

Strangely some archaeologists are not immune to the same misplaced ideas. For example, for the study of rock art, Paul Taçon and Christopher Chippindale (1998, 7–8) propose a distinction between 'informed and 'formal' approaches. Informed approaches 'depend on some source of insight passed on directly or indirectly from those who made and used the rock art – through ethnography, through ethnohistory or through modern understanding known with good cause to perpetuate ancient knowledge'. Formal approaches, on the other hand, are 'those that depend on no inside knowledge, but which work when one comes to the stuff "cold", as a prehistorian does'. In Taçon and Chippindale's discussion of 'inside' vs. 'external' knowledge in rock art studies, one sees the distinction between anthropology and archaeology articulated afresh.

Views like the above arise because, as discussed above, the anthropology of art is largely dominated by the analysis of meaning (or semiotics) in which artworks are treated as systems of signs whose meanings lie in the minds of ethnographic informants. How can archaeologists possibly recover these semiotic meanings? However, these approaches offer a definition of knowledge which is remarkably narrow, though it does have a long pedigree (e.g. Geertz 1973; Bloch 1998; see helpful review in Holbraad 2012). According to this model of knowledge, it is impossible (or extremely difficult) for archaeologists to reconstruct social or cultural systems. Cognitive definitions of knowledge necessarily overlook the knowledgeable and skilled interaction between craftsperson and artwork in the processes of making (but see Campbell 2002; Kingdon 2002; Ingold 2011; 2013; see also Boas 1955 for early discussions of making), an equally important aspect of anthropological knowledge. Moving away from a cognitive approach, the anthropologist Zachary Kingdon (2002) apprenticed himself to a Makonde sculptor in Mozambique as a way of understanding both the lives of sculptors and the making of distinctive forms of *shetani* and *mawingu* figurative sculptures in wood. We applaud this kind of approach, as his analysis provides insights not only into the social and cultural context of the sculptors and audiences (the usual focus of much scholarship in the anthropology of art), but also provides an understanding of the material dimension of sculpting, and the kind of embodied knowledge required to make these particular forms of wooden sculptures. In fact, recently anthropologists have begun to more fully integrate materials and making into their analyses (see Bakke and Peterson 2016, chapters 7–13; Sansi 2015).

Unlike cognitive knowledge, it is relatively easy to archaeologically reconstruct this kind of embodied knowledge from the traces of past actions (see for example Leroi-Gourhan 1993). In fact, archaeologists are well placed to take advantage of this kind of approach, as we shall see in Chapter 3.

Our assessment of anthropologists in this chapter might have seemed a bit harsh. We don't intend to gripe about anthropology or anthropologists, just question an over-reliance on anthropological contextualisation in archaeology. We do not believe that the context of images wholly explains their content. As a discipline, archaeology should not simply be confirming, or depending upon, the observations of our anthropological colleagues (Pauketat 2007). But this does not mean that anthropology has no value; in fact, anthropological concepts may be useful analytical tools that deepen and extend archaeological analyses. A good example of this would be the way in which the Amazonian concept of 'perspectivism' has illuminated discussions of ontology and ways of seeing in archaeology (Alberti 2016; Weismantel 2015) or Polynesian concepts of *mana* might help us to rethink prehistoric monumentality (Pollard 2013).

The approaches to art that we have looked at so far are related by a common approach: the desire to understand art by placing it in an intelligible context. For example, Donald Preziosi (1998, 13) argues that art history took causality as its central problem or concern. A key principle is the hypothesis that artworks are emblematic or representative of their original time, place and circumstance of production. As we have already seen from Ben Burt's inflammatory quote, some anthropologists find it difficult to conceive of the study of art without the framework of texts, ethnographic informants, aesthetics or the study of meaning. Again, sociological approaches, such as that of Alfred Gell's, although stepping aside from the need to examine aesthetics or meaning, still situate the art object in a network of social relations. In a similar fashion for philosophers of art, such as Danto and Dickie, the art object can only be understood and defined by its location in the institutional framework of the artworld. The anthropologist Tim Ingold (2000, 340) sums up the problems with these kinds of approaches: 'Understood as a realm of discourse, meaning and value culture is conceived to hover over the material world, but not to permeate it.'

Strangely what is lost in many of these kinds of analysis is the art itself. Artworks often only appear as ciphers for something else: cosmological meanings in anthropological studies; emblems of wider historical processes in art historical studies. We often forget that artworks are made of material substances: pigments, canvas, stone, bronze, and that these materials also have a significant part to play (though see Anderson et al. 2014 for new art historical approaches to materials). How do the material qualities of rocks and stones affect how they are sculpted or carved? How do pigments behave when applied to surfaces, whether stone or canvas? Are some metals easier to smelt and cast into moulds to produce sculptural forms, and how does this affect the final production of the sculpture? The technical and material character of artworks is important, and will be explored throughout the book.

Learning with artists

Art historians historicise, anthropologists socialise and philosophers of art philosophise art. Strangely enough there is one group of people that scholars of art rarely consider in their discussions of art: practising artists! In fact, when we do talk to artists, we find that artists and makers also think deeply about the material qualities and properties of art (see Chittock and Valdez-Tullett 2016; Renfrew 2003). This is made plain by a recent collection of papers discussing the tradition of material-based approaches in art practice, described as a form of 'material complicity' (Lange-Berndt 2015, 13). A particularly useful discussion of materials in art comes from the Australian artists Estelle Barrett and Barbara Bolt (Barrett and Bolt 2013). Barrett and Bolt also feel constrained by discussions of meaning in the arts, and forge a new direction that emphasises 'the agency of matter in artistic and cultural practices' (Barrett and Bolt 2013, 6). We strongly agree with this impulse.

Barbara Bolt (2004) offers a helpful distinction between 'artworks' and 'works of art'. Whereas the artwork is a noun, the work of art is a verb. Artworks refer more to the objecthood of the art, rather than its processual qualities. Bolt (2004, 5) writes that: 'the focus on artworks, rather than practice, has produced a gap in our understanding of the work of art as process. This gap is evident in formal and semiotic analyses of the artwork'. Bolt's argument coheres with our approach in this book, and we strongly emphasise the importance of examining the work of art as a process. We have already outlined above some of the problems involved in semiotic analyses of archaeological art; we believe that an approach that emphasises the work of art, that takes proper account of the character of materials and their role in the processes of making artworks, will pay dividends intellectually and methodologically.

Nor should we assume that materials are inert substances simply worked on by artists. We take a cue for our approach to materials from art critic Bruce Ferguson's discussion of the art practice of the British artist Cornelia Parker:

> She not only shows how an object can be bent, trampled, broken, smashed, squished, flattened, distressed, burned, smoked, dissolved, crumbled, scrambled, bitten, chewed, scratched, stretched, burgled, borrowed, vandalized, abused, shot and blown to bits, but also how that process then releases something else, like smoking or flying or decaying or hurting or slowing or being spurned or gravely falling or disappearing or corresponding, or some other emotive quality of competent objects.
>
> (Ferguson 2014, 14)

Materials are malleable. They are also generative: they make things happen. We examine the malleable properties of materials throughout this book, as they are made into art works; their visibility and tactility; their dimension and scale; their grafting together or assembly; their destruction, disassembly and deposition. Each of these processes makes things happen, and we examine the various events

that occur as a result. That artworks do things is a common point of agreement for scholars in art history (Tanner 2006, 20) and anthropology (Gell 1998; Morphy 2009).

Rather than regretting what we lack as archaeologists, our approach then is to begin with what we do have: materials. Materials are significant components of artworks, and we explore their properties and the circumstances that create them, and that they help to create.

Defining art?: art as concept

The keen-eyed reader will notice that we have nearly finished this introductory chapter without defining the term ‘art’. Here is a definition we don’t particularly agree with: ‘art objects are ones with aesthetic or semantic attributes (but in most cases both), that are used for representational or presentational purposes’ (Morphy 2007, xi). To us this seems to reduce the possibilities of what an artwork might be. As we know from the modern and contemporary artworld, artworks can be any one of a myriad of things, they need not only be ‘presentational’ or ‘representational’. Granted Morphy (2007, xi) does admit that the category of ‘art’ is polythetic and ‘contains a great deal of diversity’ but to argue that artworks can only be understood as symbols (or representations) or as having aesthetic value seems to discount a large number of things that are treated as artworks in a contemporary setting. In addition, do all aesthetically pleasing things have to be artworks? Could everyday things not be aesthetically pleasing without being ‘art’? Morphy’s definition seems to create almost as many problems as it solves. We opened this chapter with Marcel Duchamp’s question: can one make works which are not works of ‘art’? Do many things and endeavours have something of the artistic about them? What does it mean to label something as ‘art’ or ‘not art’?

Labelling things as art or ‘not art’ is fraught with problems, and these need not just be philosophical. As soon as an object becomes labelled art it also risks becoming a commodity on the international art market. As we know, many archaeological artefacts have been dug up, decontextualised and sold illegally on the art market, perhaps the most celebrated example being the circulation of Cycladic figurines dating to c.2500 BC on the art market. As Brodie et al. (2000, 12) remark:

> Most, if not all, collectors (and some academics and curators too) regard antiquities as works of art. They argue that regardless of their origin they should be put on display for all to see and appreciate – a celebration of human artistic genius that transcends time and space . . . but claims of art cannot be allowed to justify destruction and illegal looting. Many objects marketed as works of art have been ripped from historical buildings or monuments.

For these reasons, among others, we are wary of defining art for prehistoric and historic objects or artefacts. Philosophically we do not believe we can simply

point to an object or set of objects and define them as art against 'non-art' objects. Nor do we believe that a history or prehistory of these things we have labelled as art would be very satisfying or interesting. We have already stated that art is difficult to define, that the category is slippery and changeable. Our approach then is to embrace this changeability and approach art as a concept. Thinking about art as a concept means we are not thinking about art as a label or name that we attach to things; instead we consider art as something that produces an orientation or direction for thinking. Instead of applying a definition to a category of objects we call 'art', our approach instead involves extending the definition of art through an exploration of visual expression in prehistoric and historic periods. Rather than providing a top-down definition of 'art' that effectively 'frames' and determines how we should think about artworks, our aim is to provide better descriptions of prehistoric and historic images (see Latour 2005, 144). We prefer to use the neutral term 'image' in this book (as opposed to 'art') to describe a panoply of two- and three-dimensional visual forms and processes. By describing a 'bottom-up' view of past imagery, we aim at better explanations of what images were, and what images did in past societies, rather than legislating on whether they were artworks or not.

2

THE ARCHAEOLOGY OF ART

Practice, intra-action and affect

Andrew Meirion Jones

In the first chapter, we introduced various scholars who have studied art: art historians, anthropologists, philosophers. In the case of art historians and anthropologists, and in philosophical accounts of the artworld, we found that art was often explained by the analysis of its context. Art historians are concerned with historical context and questions of causation. Anthropologists are largely preoccupied with semiotics, meaning and ethnography. As we saw anthropologists, in particular, sometimes find it difficult to imagine how artefacts can be examined without the testimony of ethnographic informants. This is quite a strange attitude. When we think about it, a range of scientists regularly study the physical world without relying on oral or written testimony. Physicists, chemists, environmental scientists and material scientists spend their working lives providing accounts of materials based on the examination of their physical properties (Miodownik 2013). There are numerous methods by which materials can be analysed. We believe that the basis for an 'archaeology of art' must begin with the analysis of materials, rather than an overarching reliance on written or oral accounts.

Placing things in context: this lies at the heart of the strategy of art historians and anthropologists alike. To be fair, this has also been the strategy of archaeologists for much of the history of the discipline (see Jones 2012, 1–15). Culture-historians were interested in placing the artefacts they excavated into typological schemes, bracketing them according to defined culture groups. Processual archaeologists were more interested in defining artefacts as the products of evolutionary schemes of development and their systemic contexts (or the systems artefacts were associated with; Schiffer 1972). Post-processual archaeologists developed contextual archaeology, a method that sought to understand the meaning of artefacts by situating them in contexts that are the product of a universal structure (these approaches are derived from the structuralism of Lévi-Strauss, discussed in the previous chapter). In each case we are reliant on something that lies beyond the artefact: written accounts, ethnographic testimony, evolutionary schemes of development, structures of meaning, notions of aesthetics.

Recently, archaeologists have been returning to first principles to think about the ontological character of the archaeological record: what is the archaeological record composed of? Archaeologists have traditionally thought of the

archaeological record in a contextual sense: artefacts are excavated from soil strata that give them depositional, stratigraphic and chronological context. Instead of thinking about artefacts as situated in context, we could also say that artefacts are components of assemblages: they are inter-related, or aggregated with, the soil strata. Gavin Lucas (2012) and Andrew Jones, Ben Alberti and colleagues (Jones et al. 2013) have suggested that thinking about the archaeological record as a complex assemblage of artefacts, soils, etc. offers a more dynamic understanding of the composition of the archaeological record. Chris Fowler (2013) has expanded on this idea to consider the archaeological record as composed not only of the assemblage of sites and artefacts excavated by archaeologists, but also the assemblage of documents, museum displays and published accounts that compose the archaeological record. Thinking in terms of assemblages differs from thinking in terms of contexts. Contexts tend to be passive: artefacts or artworks are situated in contexts. Assemblages are active: they are actively made and assembled. Assemblages are also generative; they alter as one component of the assemblage is dismantled and reassembled anew. We introduce the notion of assemblage here as it reminds us to focus on artefacts, and to think about the changing relationships they engender. That is what we now want to develop when thinking about archaeological art.

Art as action, art networks

In the previous chapter, we introduced the work of the anthropologist Alfred Gell. Gell (1998) was concerned with shifting the anthropological discussion about art away from the analysis of meaning and debates about aesthetics. As we have seen above, these approaches to art rely much too heavily on framing the artwork through contextual analysis. Gell (1998, 6) rejected ‘the idea that anything, except language itself, has “meaning” in the intended sense’. He was also suspicious of aesthetic analysis: ‘I am far from convinced that every “culture” has a component of its ideational system which is comparable to our own “aesthetics” ’ (Gell 1998, 3). Rather than focusing on meaning and aesthetics, Gell argued that artworks were a form of action, a way of acting on and effecting the world. He was also concerned to develop a characteristically anthropological theory of art, by which he means a theory concerned with the study of social relations. Here is his provisional definition of the anthropology of art: ‘social relations in the vicinity of objects mediating social agency’ (Gell 1998, 7). What he means by this long-winded explanation is that art objects exist in networks of social relations, and that in certain circumstances ‘art objects are the equivalent of persons, or more precisely, social agents’ (Gell 1998, 7). Artworks can act; they have a form of agency, bestowed upon them by artists and from the position they hold in a network. Gell develops this simple proposition into a framework he calls the ‘art nexus’ composed of relationships between artworks, artists, prototypes (things reproduced in artworks), patrons and patients (the viewers of artworks).

We find Gell’s work enormously stimulating. There are a number of aspects we will retain from his theoretical framework, but there are others that we must

reject. We like the relational aspect of Gell's work. We approve of Gell's rejection of meaning as a central concern of art. We especially like his notion of artworks as a form of action. Gell's work has seen much critique in anthropology and archaeology, and the notion of art as a type of action is something that most commentators seem to have willingly accepted (Morphy 2009; Sansi 2015; Tanner 2006).

It is now some time since Alfred Gell's book *Art and Agency* was first posthumously published (Gell 1998), and his work has been recently re-evaluated by his colleagues (Chua and Elliott 2015). Part of this re-evaluation involved searching his archives, and an unpublished work by Gell was discovered (Gell 2015). This unpublished work touches on themes discussed in *Art and Agency*, but offers greater clarity in one area. In this unpublished work, Gell compares the artist Marcel Duchamp's attempts to portray time in his paintings, with anthropological and philosophical discussions of time (time was also one of Gell's interests, he wrote an entire book on the topic: Gell 1992a). It emerges that one of the key themes of Gell's work on art is time and process. This is perhaps best explained by referring to one of Gell's remarks concerning Duchamp's artworks: 'the significance of any Duchamp work is never anything but relative, because it is never in the individual works, the "stops", that meaning resides, but only in the gaps which lie between them' (Gell 2015, 112). We need to consider artworks, and art-making, as an ongoing set of practices whose significance is derived from their inter-connections. Artworks are knots situated on the thread of time: to unravel them and understand their significance, we need to pay attention to the individual knots as well as how the thread connects them. We believe that the understanding of process outlined by Gell is vital to the archaeological study of art.

Conversely, we strongly disagree with Gell's argument that artworks mediate social agency or the allied concept that art objects are the equivalent of persons. This has drawn much criticism since the publication of his book. Howard Morphy (2009, 6) argues that this is an analogy too far. Chris Gosden (2001) too notes that in Gell's terms, objects only appear to have a derived or secondary form of agency: 'to call objects secondary agents is to make them look like people, but with certain deficiencies of intention' (Gosden 2001, 164). Ultimately Gell's approach situates the artwork in a framework of social analysis; in which the artwork is analysed, evaluated and framed by social relations. When all is said and done, this looks very much like the analysis of meaning and cultural aesthetics that Gell sought to avoid: artworks are made meaningful because of the ideas projected onto materials by artists, just as artworks become agents because they mediate the intentions and social agency of artists. Neither of these approaches is satisfactory. We discuss Gell's notion of agency further below.

Outlining an 'archaeology of art'

We believe that any approach to archaeological art must begin with the material from which the artwork is composed. Many of the approaches to art we have examined above begin with human social relations and use these as a framework

for analysing art. Instead, our analysis begins with materials and uses materials as the basis for understanding human interactions. Materials should not be construed as having a secondary agency conferred on them by humans. Instead we adopt a maker's approach to materials. By a maker's perspective, we simply mean that equal weight is given to humans and materials; we examine materials and people as they work in partnership. We do not need to figure materials as acting like persons (as Gell suggests), instead we recognise that materials act in different ways from humans, but are nonetheless active participants in the world. Mary Weismantel (2015, 142) puts this well when she discusses archaeological perspectivism:

> An archaeological perspectivism will be materialist and historical. It will be materialist in seeing humans as actors and makers who co-create the world together with other beings and things, rather than standing back to think and observe. And it will be historical in its deep temporal perspective.

This is precisely the kind of thinking that we will develop throughout this book. For the most part, we focus on humans as makers, actors and viewers, working in concert with materials. In the final chapter (Chapter 12), we develop our approach by discussing how it unfolds historically.

Our analysis of the archaeology of art begins simply by focusing on the relational interaction between people and things, maker and material, or artist and artwork. We focus on the engagement between people and materials, and the affects produced from that interaction. We argue that the results of this interaction will depend on the participants interacting; different forms of interaction with materials will produce different affects and outcomes.

Interaction is a deceptively simple word to describe quite a complex process. What do we mean by interaction? Is interaction even the right word to describe the relationship between makers and materials? Let's look at how artists and others have discussed the interaction between makers and their materials to hone and define what we mean by interaction.

Interaction and intra-action

Practical engagement and interaction with materials in modern and contemporary art radically changed after the introduction of Duchamp's readymade, and with a conscious unlearning or deskilling of traditional art practice (Roberts 2007). For Duchamp, making art involved choice, and in fact Duchamp considers the readymade as a kind of 'rendezvous' (Duchamp 1973, 32), which involves a chance or fortuitous encounter between object and artist. While the idea of the readymade and the surrealist notion of the 'found object' attempts to capture a sense of chance and indeterminacy in the art-making process, these ideas have a wider resonance for thinking about the processes of interaction between people and objects in contemporary art and in prehistory. As Roger Sansi (2015, 26) points out, these

art practices closely resemble Claude Lévi-Strauss' concept of *bricolage* (Lévi-Strauss 1966). Sansi defines *bricolage* like this: 'we can only work with the things we find in our way; the elements with which we organize our world are necessarily . . . subject to contingency' (Sansi 2015, 26). Practices of making and working are always affected by the qualities and character of the given world. Our intentions and projects are partly conditioned by this. The realisation of these projects will be a result of the encounter with this external contingency.

Artists such as Henry Moore – who was famously inspired by the flint nodules he collected – neatly discuss these working practices in the following quotes:

> Sometimes for several years running I have been to the same part of the sea-shore – but each year a new shape of pebble has caught my eye, which the year before, though it was there in hundreds, I never saw.
>
> When first working direct in a hard and brittle material like stone, the lack of experience and great respect for the material, the fear of ill-treating it, too often result in relief surface carving, with no sculptural power. But with experience the completed work in stone can be kept within the limitations of its material, that is, not be weakened beyond its natural constructive build, and yet be turned from an inert mass into a composition which has a full form existence, with masses of varied sizes and sections working together in spatial relationship.
>
> (Moore 1966, 65–66)

What Moore captures in this discussion are the elements of chance and attentiveness involved in the working practice of the artist. Pebbles – found objects – catch the eye and inspire. Materials worked on must be treated with care, and it is only through careful attention to the materials that workable sculptures can be achieved.

The art historian James Elkins (2000) likewise focuses on the attentiveness of artists to their materials when he discusses the material qualities of paint. He points out that paint is composed of a mixture of liquid (water or oil) and crushed stone (pigment). He draws analogies between painters who manipulate this unpromising mixture into visually arresting paintings and alchemists who attempt to transmute liquids (such as paints) into hard substances like stone. Painters are akin to alchemists. They experiment with and manipulate materials to produce something new and different.

Materials are not just inert substances that have nothing to contribute to the process of making art, and art-making is not simply a process of transferring a concept into a material form. In fact making artworks involves a close and attentive interaction between a maker and their materials, and these interactions can produce unexpected, alchemical, even magical results. We agree strongly with Tim Ingold when he says:

> The living work of art, however is not an object but a thing, and the role of the artist is not to give effect to a preconceived idea, but to follow the

> forces and flows of material that bring the work into being. To view the work is to join the artist as a fellow traveller, to look with it as it unfolds in the world, rather than *behind* it to an originating intention of which it is the final product. The vitality of the work of art then, lies in its materials, and it is precisely because no work is ever truly 'finished' (except in the eyes of curators and purchasers, who require it to be so) that it remains alive.
>
> (Ingold 2013, 96, original emphasis)

Ingold (2013) discusses kites as an example of something made that continues to be alive as they interact with people. He describes this as a form of correspondence. The kite sets up a correspondence between the animate movements of the flyer and the current of the aerial medium in which he or she is immersed. Ingold beautifully captures what we mean by interaction when thinking about the archaeology of art.

The word 'interaction' implies action between two fixed and discrete bodies. But is this accurate? Is the relationship between maker and material one of a relationship between fixed entities or is there a more fluid dynamic? The philosopher of science Karen Barad (2007) introduces us to another term to describe the fluid relationship between matter and human observer: she describes this as intra-action. For Barad (2007, 170):

> Matter's dynamism is generative not merely in the sense of bringing new things into the world but in the sense of bringing forth new worlds, of engaging in an on-going reconfiguration of the world. They are not simply situated in, located in, particular environments. Rather 'environments' and 'bodies' are intra-actively co-constituted.

Barad is concerned with particle physicists studying fundamental atomic particles. We are concerned with people making art. Nevertheless, Barad's discussion of the relationship between matter and makers resonates. The artist or maker follows the forces and flows of the material; they attentively work with it. The artwork is not a finished product but remains alive; intra-action with materials produces certain affects, effects and outcomes, and these are ongoing. Throughout the book, we will discuss how certain kinds of practices of intra-action produce affects. Barad describes these intra-active practices as a process of bringing forth new worlds, a re-configuration. When discussing the fundamental particles of the universe, this seems quite reasonable, but is this an overblown description of what is happening when people make artworks? We will argue that makers are indeed bringing forth new worlds by making artworks. They do so by achieving affects.

Affect, intra-action and agency

Affect is another deceptively simple word, which again should be explained and clarified. The concept of affect has rarely been discussed in anthropology or

archaeology (though for archaeological definitions of affect see Brady and Bradley 2014; 2016; Brady et al. 2016; Harris and Sørensen 2010; Hamilakis 2013).

There are myriads of different meanings of affect. In her book, *Ordinary Affects*, the anthropologist Kathleen Stewart (2007, 21) describes affect as a set of potentials:

> The potential stored in ordinary things is a network of transfers and relays. Fleeting and amorphous, it lives as a residue or resonance in an emergent assemblage of disparate forms and realms of life. Yet it can be as palpable as a physical trace. Potentiality is a thing immanent to fragments of sensory experience and dreams of presence. A layer, or layering to the ordinary, it engenders attachments or systems of investment in the unfolding of things.

For Melissa Gregg and Gregory Seigworth (2010, 2), affect is 'in many ways synonymous with force or forces of encounter', though force may be a misnomer, as many affects need not be forceful. Affects can be subtle and emotive or forceful and strong. Affect is the 'change or variation that occurs when bodies collide or interact. Affect is the transitional product of these kinds of encounters' (Colman 2005, 11). Simon O'Sullivan (2006, 38) offers a concise definition of art and affect: 'affect here is understood . . . as the effect a given object or practice has on its beholder, and on its beholder's "becomings" '.

We find affect a useful term to discuss the intra-action between artist or maker and materials, as the term captures the sense of change, the sense of making afresh, of arriving somewhere new through a process of encounter and intra-action. The capacity of artworks are never solely defined by the materials from which they are composed. They are always aided and abetted by the field of intra-actions of which they are a part. In that sense, the affects produced by intra-actions is almost infinite: how materials behave depends very much on the character of intra-action. By working with materials, the artist or maker makes visible forces that would otherwise remain invisible, they produce new sensations. The philosopher Gilles Deleuze (2003 [1981], 41) describes the rendering of sensations as a problem of which painters are very conscious. He gives us this example:

> When pious critics criticized Millet for painting peasants who were carrying an offertory [an offering made during a religious service] like a sack of potatoes, Millet responded by saying that the weight common to the two objects was more profound than their figurative distinctions. As a painter, he was striving to paint the force of that weight, and not the offertory or the sack of potatoes.

What is important here is not the physical image of the offertory but the appearance of weight rendered in Millett's painting; this appearance is a kind of affect. Millet has rendered one kind of sensation (weight) in the form of another (a

painted image): the task of painting is to attempt 'to render visible forces that are not themselves visible' (Deleuze 2003 [1981], 40).

In talking about affect, we mean the presence, or sensory impact, of artworks (Armstrong 1971), the outcomes of working on projects, and the sensations revealed by making something new (Deleuze and Guattari 2009 [1994]). Each of these senses of the term affect will come into play as we explore different dimensions of archaeological art, from making and improvising, to handling and viewing, and assembly and disassembly. To focus on affect means shifting our discussion away from questions of interpretation or representation. In the example of Millet's painting discussed above, the challenge is not to paint a representation, but to paint a sensation, in this case, weight. By focusing on affect we are less concerned with cognitive knowledge, and more concerned with how art conveys bodily experience. But affect implies much more than this.

Affects are also immanent: they are moving forces. Intra-action and affect are closely related. Recall that Karen Barad argued that 'environments' and 'bodies' are intra-actively co-constituted. It is this co-constitution that helps produce forth the re-configuration of the world. In a similar sense, Kathleen Stewart described the potential of things to produce affects. She described affects as layers in the unfolding of things. It is our contention that affects are produced through intra-actions; both involve a process of collision and connection, and both produce something new from this encounter. Intra-actions create new kinds of connections that themselves have impact, the impact of those connections themselves produce new intra-actions. Affects are multiple, relational and ongoing. As Harris and Sørensen (2010, 150) point out, affects are dynamic and generative. To capture this sense of relationality they coin the useful term 'affective field'.

Here we want to distinguish between Alfred Gell's discussion of agency and art, Karen Barad's discussion of intra-active agency, and the notion of affect. As we discussed above, Alfred Gell (1998) argues that artworks are secondary agents. Gell (1998, 22) offers a relational view of agency, using the example of his car: 'cars are not human beings, but they act as agents and suffer as patients "in the causal vicinity" of human beings, such as their owners, vandals and so on'. For Gell (1998, 22), agency is transactional; things may be agents at one moment, patients at another: 'in any given transaction in which agency is manifested, there is a "patient" who or which is *another "potential" agent*, capable of acting as an agent or being a locus of agency (original emphasis)'. Although Gell offers a subtle understanding of the momentary distinctions between agents (doing the acting) and patients (as the recipients of these actions), he is concerned with the locus and position of intentionality, discussing people and artworks as intermediaries 'between ultimate agents and ultimate patients' (Gell 1998, 23). He is concerned with who is doing the acting, and their intentions and purposes. Karen Barad (2003, 827), on the other hand, argues that agency is not an attribute of people or things that pre-exists encounters. Agency is the 'enactment of iterative changes to particular practices through the dynamics of intra-activity'. Possibilities for acting occur at every moment, and these possibilities 'entail a

responsibility to intervene in the world's becoming' (Barad 2003, 827). Agency, then, occurs in encounters.

Gell's discussion of agency is closely allied to issues of representation: who is being represented; how are they being represented; who is doing the representing? This is surprising, given his desire to move the discussion of art away from the analysis of meaning. Many discussions of agency focus on attributing intention or causation to people or things; the possession of agency. It is possible to rethink what we mean by 'agency'. As we have seen, Barad's notion of intra-activity is not concerned with representation and intention and promotes a wider definition of agency: agency is a kind of action enacted by people and things. Affects are one of the products of these intra-actions. Gell (1998, 17) is concerned to discuss how artworks can be made to act, discussing their attributes as secondary agents 'once they become enmeshed in a texture of social relationships'. Our analysis of affect is unconcerned with the mapping of agency. Affects may be the product of either the intra-action of things or the intra-action of people and things. Gell (1998) was concerned to examine agency as a set of transactions (implying interaction between distinct entities) viewing artworks as components of networks. Instead, in our view affects are the products of intra-active encounters. Affects are both impulses for the making of art, and a way of understanding what artworks do. Affects are ongoing and changeable. In many ways, the concept of affect is very archaeological: it relates to the changing character of the world as the outcome of processes of intra-action (see also Massumi 2002). This sense of becoming lies at the heart of archaeological chronologies and accounts of change (see Chapter 12).

Gell (1992b, 1998) argues that art acts as a kind of 'technology of enchantment': artworks are indexes of human agency and ingenuity, 'a congealed residue of performance and agency in object-form' (Gell 1998, 68). It is this that lends artworks their ability to enchant. Gell (1992b, 46) describes this as 'the halo effect of technical difficulty'. Because artworks are technically difficult to accomplish, the 'products of these technical processes seem enchanted vessels of magical power' (Gell 1992b, 46). What Gell is discussing here is a kind of affect (enchantment), yet his formulation (artworks as a technology of enchantment) seems to narrow the scope of the possible affects produced by artworks. Do all artworks enchant? Can artworks do other things, do they stimulate or affect people in other ways? Our aim in this book is to explore the variety of affects produced by intra-action with artworks, rather than restrict our analysis of artworks to a single category of affect.

Affect refers to the additive processes, forces and powers that produce a modification or transformation in an affected body (Colman 2005, 11). The affected body could be a human responding to an image, or it could be a material being fashioned into an image by a maker. Affect provides the impulse for making works of art, and the artworks produced themselves stimulate sensation and further action. But this should not be considered as the result of linear cause and effect. Kathleen Stewart (2011) reminds us that emergent assemblages produce affects: these are networks of things that are in constant flux. As such, the affects

produced by intra-actions need not be direct, they may travel through networks in unexpected or indirect ways.

Practice and affect

Our approach is then relational: practices of intra-action between maker and material are our central point of focus, as are the outcomes of these intra-actions. These moments of intra-active collision are themselves relational. As Harris and Sørensen (2010, 150) remark: 'affective fields are thus networks of relations that are produced through, and are themselves productive of, practice'. They are related to other moments of intra-action that are united as events in the ongoing flow of activities. If this is the case, then intra-active practices are closely linked to affects. We cannot legislate on this and say that where we see particular kinds of practices we should also see certain kinds of affects. As Stewart (2007) shows us, affects are the results of potentialities. They may, or may not, occur. Although there are not direct causal relationships between practices and affects, by exploring practices over the long term we will tend to see the repetition of certain kinds of affects. Affects are organised and shaped by practices, and practices by affects. Components of practice come together for longer or shorter periods of time and function in various constellations. These constellations are held together by and mobilised by affects (Beckman 2017, 74).

Affects are multiple, they are also transitory. How do we perceive such an intangible thing as an affect archaeologically? Affects are the results of collisions or intra-actions, perceptible by those things that they have effected. An analogy may be helpful here. Our analogy returns us to the field of particle physics. Michael Doser (2017) analyses the behaviour of antimatter at CERN, the European Centre for Nuclear Research. By its very nature, antimatter is intangible and difficult to detect. One of the ways in which antimatter particles are imaged is by beaming antimatter at plates of photographic emulsions: 'Antimatter annihilates upon contact with matter, transforming the full mass of the disappearing particle and antiparticle into energy, which can then re-appear in the form of new particles and antiparticles' (Doser 2017, 145). The incoming and outgoing photographic traces can be considered as a three-dimensional record of the passage of particles. Particles of matter and antimatter are recorded indirectly, 'via the electrons liberated from the atoms in the emulsion that they traverse prior to coming to a stop' (Doser 2017, 147). This is critically important as it is the intra-action between plates of photographic emulsion and particles of matter and antimatter – otherwise invisible and intangible – that records the passage and presence of these particles. The effect of the collision between particles and emulsion is recorded in the material of the emulsion itself. The presence of antimatter is detected by what it has affected.

In a similar sense, intangible affects are recorded archaeologically by their impact on materials or bodies. As Barad (2003, 824) remarks: 'Either way, what is important about causal intra-actions is the fact that marks are left on bodies. Objectivity means being accountable to marks on bodies.' What is the

archaeology of art but marks made in materials: whether marks painted on, or incised into, rock surfaces in rock art; marks painted on the surfaces of wooden coffins in early Egypt; marks pecked into stone to produce sculptural forms in Neolithic Europe, early Egypt or the prehistoric Andes; marks left by the manipulation of clay in figurine-making; marks carved in mammoth or elephant ivory for bead or figurine production; designs incised or stamped into metalwork or metalwork as the trace of designs made using other materials (such as in the 'lost wax' technique)? Each of these evinces an affect, the product of an intra-action that has left a mark upon materials. Each of these will in turn produce yet further affects, which we can detect by their intra-action with other materials. Affects are multiple and ongoing.

Over the course of the book, we will look at a several forms of intra-action, differing types of practice and their correspondent affects:

- Marking and making, and experimentation and improvisation (Chapters 3 and 4). Here we examine the relationship between maker and material, specifically looking at gesture, the significance of different types of mark, and the importance of sequences of intra-action in fashioning artefacts and artworks. In this chapter, we are especially concerned to look at the outcomes of intra-actions, and the connections between these as we examine the concept of the *châine opératoire*. We are concerned to develop an archaeological understanding of mark-making as both evidence of intra-action, and as of evidence for the affects of interaction. Here we particularly focus on the sensory practices associated with making and working materials.
- Relations of scale (Chapter 5). Here we especially focus on miniaturisation and gigantism as a form of intra-action with the human body. Miniaturisation and scale in the making of artefacts and artworks, and in subsequent intra-actions between artwork and handler. Here we are especially concerned with the capacity of artefacts or artworks to captivate the viewer, through close sensory engagement, whether tactile or visual.
- Light and colour (Chapter 6). Here we focus less on the fashioning of artworks and think more about how the material qualities of art play a part in how viewers or spectators engage with and are affected by art. In particular we are especially interested here in the allure of certain materials and their use in artefacts and artworks. We are concerned to develop an archaeological understanding of the behavioural properties of materials in certain environmental conditions, such as those of lightness and darkness.
- Assembly and disassembly (Chapter 7). Here we focus on the affective power of processes of aggregation, of bringing materials together, and of fragmenting and dissolving those associations. We are interested in the affects produced in these different circumstances of interaction. In this chapter, we develop existing ideas of fragmentation and assembly in archaeology (particularly those of Chapman 2000) and argue for their central importance not only in the analysis of archaeological art, but in archaeological analysis more

generally. The significance of assemblage is further discussed in Chapter 8, where style is examined as a species of assemblage.

- Meaning and mattering (Chapter 9). In this chapter, we look at the fraught discussions around matter and its significance. Rather than meaning being imposed on matter, we argue for a more dynamic relationship in which meaning emerges from the intra-action between materials and interpreters.

What we examine throughout the book are the practices that artworks and artefacts are caught up in; these are critically important moments of intra-action that produce a series of affects. The remainder of this book examines these key moments of intra-action. Throughout we primarily focus on the sensory affects of touch and vision in relation to art and imagery. We are aware that other sensory modalities may be at play, particularly sound (Goldhahn 2002; Lahelma 2010) and to some extent taste and smell (Hamilakis 2013), though space prevents us from exploring all forms of sensory affect. In the final chapter, we develop the understanding of artworks as assemblages to propose a four-dimensional analysis of archaeological art; examining artworks as practices of affective unfolding and re-configuration.

At the end of the previous chapter, we explained that we rejected the idea of defining art. This is because makers or artists' intra-actions with materials produce an infinite number of affects and outcomes. We feel that it is unlikely that we will ever remark: 'Now we know what art can be. Let's call it a day, our work is done!' Instead what is interesting about art is its myriad of possible affects.

3

MAKING AND MARKING

Andrew Meirion Jones

Between February and May 2013, the British Museum staged a major exhibition of artworks from the Upper Palaeolithic in Europe. The exhibition was titled *Ice Age Art*. Before it opened to the public, two doyens of the contemporary art scene in Britain were asked to comment on the show: the potter Grayson Perry and the sculptor Anthony Gormley. Independently, both isolated one piece from the show as displaying an artist at the top of their game: the engraved drawing of two deer on a piece of prepared bone from Le Chaffaud Cave, France, dating from between 16,000 and 14,000 years ago (Figure 3.1).

What makes this piece so special? One of the most striking characteristics of this engraving are the clear and confident lines that delineate the back of each deer, and the series of strokes that define the backbone of the deer in front. These are not gestures produced by someone who lacks confidence and experience, but of someone in perfect control of their line. Someone who understands how bone behaves when engraved.

Gesture is an important characteristic of making. Yet it is something that is generally overlooked in the analysis of archaeological art. This is a shame as the analysis of gesture can provide information on craftsmanship, style and an appreciation of affect.

In his recent analysis of the remarkable rock art from Alta, Arctic Norway, Knut Helskog (2014, 34–39) draws our attention to the different processes involved in making rock art. Through careful documentation in different lights using photography, he can isolate different techniques of making, including millimetre-sized rectangular peck marks which are then enlarged using a broad-edged tool (used to depict an elk), percussion and drilling (used to depict a human figure); shallow peck marks; use of a sharp-edged tool (to depict an elk) and painting in red ochre with a brush (used for a variety of images). Many of these techniques are used in the same phase of carving, Period II (4800–4000 BC), while the shallow peck marks date from Period III (4000–2700 BC). Techniques of making, and the analysis of gesture, are used here partly to distinguish different styles of motif from different phases. Another alternative might be to regard them as individual stylistic or gestural techniques, differing skills possessed by different artists or makers (Helskog 2014, 37).

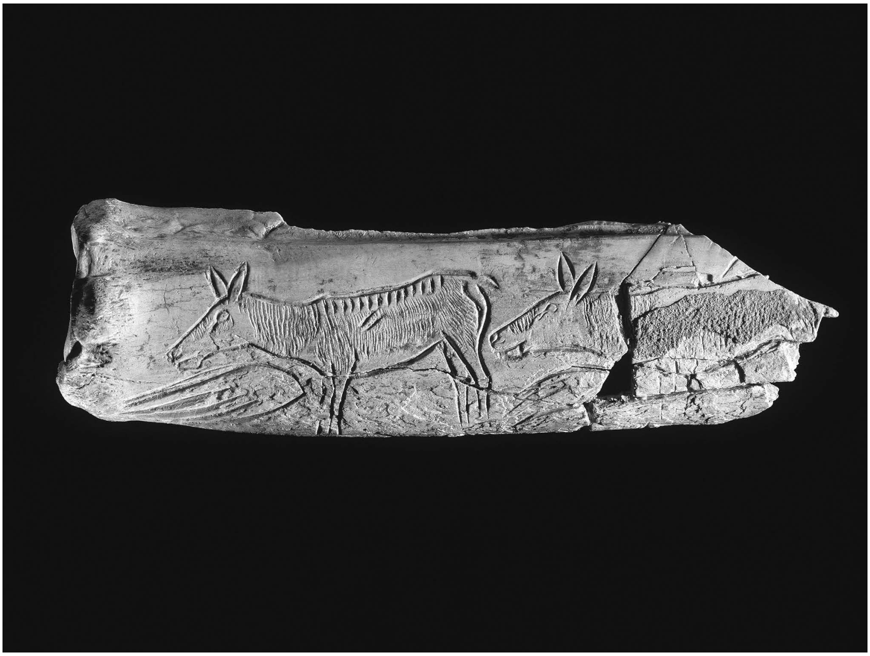


Figure 3.1 Drawing of two female deer engraved on bone found at Le Chaffaud, Vienne, France in about 1840. c.16,000–14,000 years old. Photo Copyright: Musée d'Archéologie Nationale, Saint-Germain-en-Laye, France

This is a useful start if we want to think about gesture, technique and skill, but it only takes us so far. A more sophisticated analysis of gesture is possible. We will explore this now in two case studies examining rock art in two different regions of the globe: Finland and New Mexico.

Gesture and touch in the prehistoric rock art of Finland

Although Finland was part of the Swedish kingdom until 1809, and rock art had long been known in Sweden, rock art in Finland was not recorded until 1911. In fact the first record was made by Finland's most famous composer, Jean Sibelius, who recognised some peculiar imagery in red ochre on a cliff close to the house of his friend, the artist Oscar Parviainen. This chance discovery was fully recorded six years later, but the rock art imagery of Finland has only been studied in detail in recent decades (Lahelma 2008). This may be due to the relatively fugitive nature of the imagery, mainly executed in red ochre and painted on impressive vertical cliff faces close to lake edges. The rock art images are difficult to spot, and difficult to access.

The rock art motifs are not easy to date, but recent work reported by Antii Lahelma (2008, 33–42) dates the images to between 5000 and 1500 cal. BC on the basis of shore displacement chronology. The first images were painted in the Early Subneolithic, around 5000 BC, while the majority of images were painted between 3600 and 2500 BC. Most of the sites are in the central and eastern parts of Finland, particularly on the shores of Lakes Päijänne and Saimaa. The range of motifs is limited and mainly consists of schematic depictions of stick-figure humans, elks, boats, geometric signs and handprints rendered in red ochre. It is the handprints and geometric motifs that we will focus on here.

Almost all the images discovered to date are situated close to lakes, or next to water, typically on vertical cliffs of granitic rock. This lends them a peculiar acoustic dimension, as these cliff surfaces produce spectacular echoes. In addition to their acoustic properties Lahelma (2010) draws attention to the tactile properties of these painted locations, and their images. Many of the sites only have single painted handprints, but in a number of others, handprints were superimposed on other images. For example, at Saraakallio and Astuvansalmi in eastern Finland, handprints were superimposed on painted images of elk (Figure 3.2). In other cases, as at Löppösenluola and Venäinniemi, handprints are accompanied by areas of smeared red ochre paint. Lahelma argues that that the act of touching and marking rock surfaces was at least as important as depicting recognisable images. He interprets the act of touching as a means of accessing the spiritual potency of these landscape locales whose acoustic properties give them a sense of the otherworldly and numinous.



Figure 3.2 Image of painted handprints placed next to elk motifs at Saraakallio, Finland. Photo Copyright: Antti Lahelma

Handprints are an important feature of rock art traditions across the globe. This case study highlights the importance of focusing on gestures as a form of affective performance. As Lahelma (2010, 55–56) argues, understanding the symbolic meaning of handprints does not take us very far. More important is the fact that the handprint provides evidence for the significance of the act of touching, of making contact with the rock surface; a process in which the potency of the paint (in this case red ochre) was at least as significant as the image painted.

This case study focuses our minds on the importance of gesture. It demonstrates that the intra-action between rock surface and artist through touch was significant, but the implication of specific types of gesture is difficult to comprehend. This example simply draws our attention to the importance of gesture. It has not analysed gesture in any depth. For an analysis that focuses on gesture in greater depth, we will examine our next case study looking at the Comanche rock art of New Mexico.

Gesture and performance in Comanche rock art, New Mexico

New Mexico, USA, is renowned for its Pueblo villages, such as Taos. The Pueblo people produced a distinctive form of pecked rock art motifs. Less well known, and only recently discovered in the region, are a series of Comanche rock art images. These images are dated to the early eighteenth century AD on the basis of their iconography: the images are of figures riding on horseback, but the absence of gun imagery suggest they pre-date the 1740s when French traders made guns widely available on the South Plains (Fowles and Arterberry 2013, 81). The rock art is likely to relate to a period of raiding and trading in the region by Plains Indian tribes, most likely Comanche.

A rock art survey project examining the Rio Grande gorge, New Mexico has only recently documented this Comanche rock art imagery. One of the reasons these rock art images were unknown until recently is because they are so difficult to see: a huge problem for the field archaeologist attempting to record and document them. However, this is one of the aspects of these images that make them so interesting, and the reason why we discuss them here. The imagery was lightly scratched on very hard basalt boulders, most likely with a knife or some other metal tool (Fowles and Arterberry 2013, 72).

Severin Fowles and Jimmy Arterberry offer us an instructive discussion of the process of documenting these images:

> Once a boulder is scrutinized and found to have faint scratches, it must be gridded off; then each line, each individual scratch, must be traced across the rock surface, re-enacting, as it were, the specific hand movements of the Comanche artist three centuries ago. Quite often, distinct icons are not identified until the end of the documentation process, at which point one realizes that one had been tracing the lines of a parfleche

> (a ceremonial hide container) or a horse without realizing it. In other cases, the iconographic content never does reveal itself; all one walks away with is documentation of patterned gestures, traces of obscure, centuries-old hand movements back and forth, faintly swirling across a rock surface.
>
> (Fowles and Arterberry 2013, 73)

In their discussion of the rock art images recorded in the Rio Grande gorge, Fowles and Arterberry discuss several examples of narrative scenes: depiction of an encampment with a series of horses and riders, and elsewhere in the gorge depictions of a series of horse raids (Figure 3.3). While narrative is an aspect of this rock art tradition (it is a component of a wider Plains Indian tradition known as Biographic Tradition; Keyser 1996), the depiction of scenes is not the major reason this rock art was executed. Instead it was the act, or gesture of depiction, that was significant.

Fowles and Arterberry (2013, 74) argue that the performed gesture was likely more important than the icon produced. An image of a horse produced by pecking may look 'like a horse in the end, but the process of pecking – of repeated staccato impacts – does not have the quality of a horse about it. The Comanche horse icon, on the other hand, was composed of arcing lines that move in a very horse-like

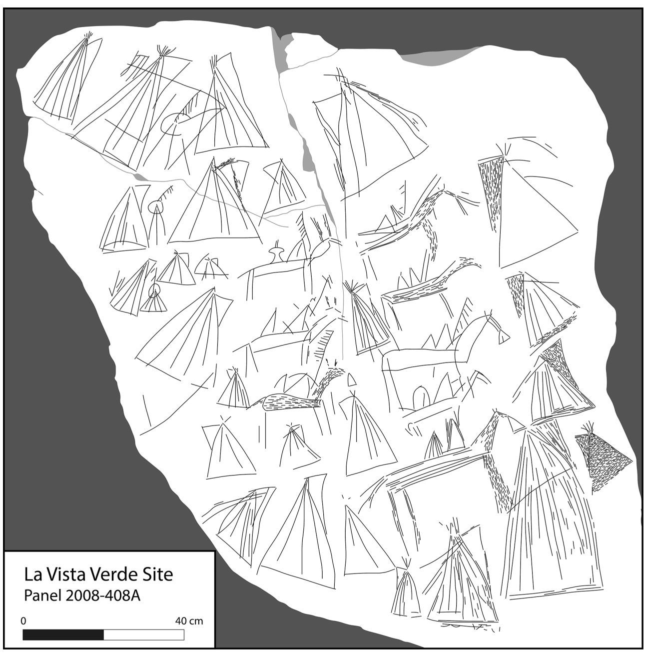


Figure 3.3 Scene depicting horse and riders, Rio Grande, New Mexico. Image Copyright: Severin Fowles

way across the rock surface.' It was the repetitive hand movements that would have signified the movement of horses.

Fowles and Arterberry link this practice of making with the tradition of sign language, known as the Plains Sign Language (PSL) tradition of which the Comanche were renowned participants. For example, in the sign language of the Plains, the Comanche were known as the Snakes, mimed by placing the right hand palm downward, with forearm across the body and wiggling it to the right.

They argue that this logic of mimetic gesturing is replicated in battle imagery (Figure 3.4) in which unmounted warriors with headdresses are depicted holding lances that appear as meandering lines that reach out to touch other warriors. They link this with the tradition of counting coup in which 'men demonstrated their courage in battle by riding forth among the enemy and boldly touching an opponent in the midst of battle' (Fowles and Arterberry 2013, 76). They go on to argue that Comanche warriors will have built their reputation from military actions, but those actions needed to be stabilised and given reality through artistic actions. The rock art images of battles could then be considered as decorations, both in the sense of military honours and as depictions on rocks and other media (Fowles and Arterberry 2013, 79).

This example is embellished by historical details unavailable to many archaeologists. We introduce it here not for these details, but for its analysis of the significance of gesture. One of the key points that Fowles and Arterberry (2013, 67)

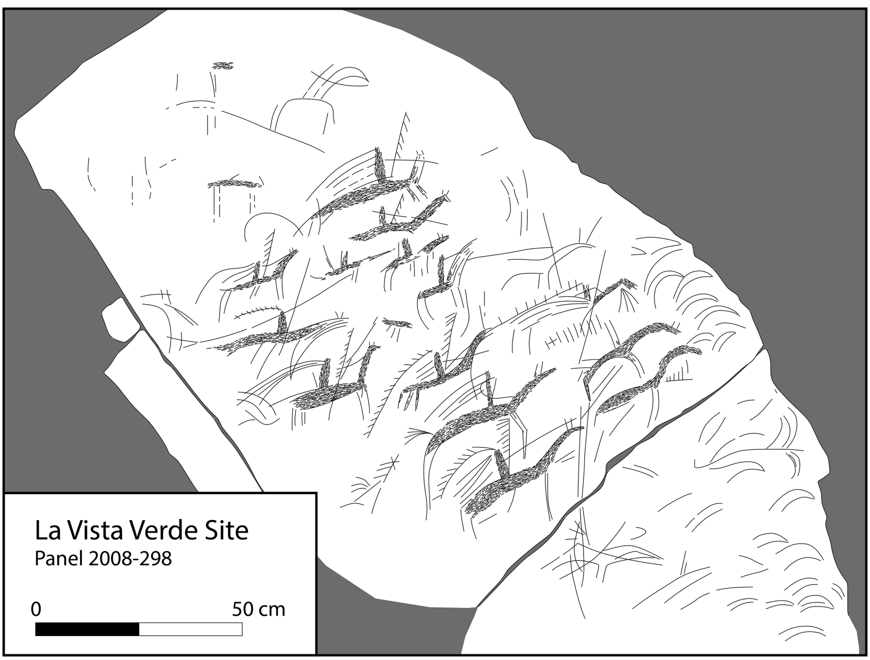


Figure 3.4 Battle imagery in Comanche rock art from Rio Grande, New Mexico. Image Copyright: Severin Fowles

emphasise in their analysis is that it is possible to read these traces and organise them into discernible icons and think of them as finished products. To do so would be to overlook the core logic that made the rock art a potent mode of expression in Comanche society. This example usefully draws out our previous discussion of the relational intra-action between maker and material. As Fowles and Arterberry (2013, 73–74) put it:

> Had the Comanche rock artist wanted to create a visually impressive finished product, he could have done so. The very same landscape is filled with images produced by Archaic, Pueblo, Apache and Spanish artists, all of whom used quartzite pecking stones (or in later times, metal tools) to break through the dark patina of the basalt and expose the light interior, resulting in imagery that had high visual impact. The legibility of the finished icon seems to have mattered a great deal to these artists.

There is a clear intra-action between maker and materials here, a complex intra-action between technology, technique and the variable properties of material: the basalt when pecked can either appear distinctive, or when scratched, indistinctive. The example also underlines the point that performance is key to making. For the Comanche, gesture was significant in itself, though more generally gesture lies at the heart of all practices of making. We will now explore formal methods for examining gesture and making.

Gesture and sequences of making

Archaeological theory comprises a mixture of ideas borrowed from other disciplines including anthropology, literary theory, art history, sociology, human geography, science studies. The list is almost endless. One of the few genuinely original archaeological concepts comes from French archaeological theory. This is the *chaîne opératoire* or operational sequence. This concept was devised by André Leroi-Gourhan. Leroi-Gourhan was a contemporary of Claude Lévi-Strauss, and just as Lévi-Strauss had invented a formal system for the analysis of culture (structuralism), so Leroi-Gourhan created a formal system for the classification and analysis of gesture (Leroi-Gourhan 1993 [1964]), and for considering how a series of gestures were interlinked in an operational sequence or *chaîne opératoire*. Leroi-Gourhan (1993[1964]) remarks:

> The human hand is human because of what it makes, not of what it is, namely a fairly simple osteo-muscular device capable, from the monkey of performing, in a mechanically very economical manner, movements of grasping, rotation, and transmission.

From the simple beginnings of the study of human gesture, he builds up a typology of the elementary connections between actions and tools (Leroi-Gourhan

(1993[1964], 240), breaking down connections between types of percussion (crushing and sectioning; hammering; scraping and digging) and types of hand or bodily action (grasping; digito-palmar; interdigital; projection). From this he identifies the types of tools associated with each type of action, for example interdigital actions of a percussive crushing type require a needle, while those requiring a scraping action require a scraper. For Leroi-Gourhan then, the intersection between hand, tool and the type of action performed is of critical importance.

From an analysis of these elementary gestures, we are then able to build up an understanding of how these gestures are integrated in a sequence of actions. This is the *chaîne opératoire*. Although his interpretations have been critiqued (e.g. Ucko and Rosenfeld 1967), his detailed observational approach has been heralded as 'a work of outstanding ingenuity' (Ucko and Rosenfeld 1967, 195). The *chaîne opératoire* enables archaeologists to build up an understanding of the sequence of gestures involved in manufacturing artefacts from the traces that actions leave on materials.

The *châine opératoire* is most often employed in lithic analysis, as the impact scars on flint, obsidian and the like are easily reconstructed, allowing the lithic researcher to reconstruct the series of actions required to make a finished tool. However, it has also been used by archaeologists for the analysis of pottery (van de Leuww 1993) and basketry (Wendrich 1999) as well as a host of other materials (Miller 2009). Pierre Lemonnier (1992, 26) defines the *chaîne opératoire* as 'the series of operations involved in any transformation of matter (including our own body) by human beings'.

In Chapter 2, we discussed the close and attentive intra-action between materials and artists, yet Lemonnier's definition of working materials seems to imply that choice and intention solely lies with the person working materials. Chantal Conneller (2011) offers a different approach to materials. Her work is concerned to investigate how materials are known and how they exhibit different properties in different circumstances. Rather than materials containing a finite list of inherent properties that are elicited by the knowing subject (the person working materials), instead properties are the product of the intra-action between artist or craftsperson, technology and material. She also points out that our definition of *chaînes opératoires* is too narrow. Too often operational sequences are discussed as if they are bracketed off from other materials and activities. Instead she argues that these operational sequences are enmeshed and intercutting. Traditional accounts of *chaînes opératoires* tend to focus on action on matter as inert substance (as we saw with Lemonnier above), overlooking what matter does, and in particular what it does in connection with other things (Conneller 2011, 19). Conneller (2011, 20) charts a shift away from sequences, solid forms and heterogeneous matter towards a focus on connections, assemblages and heterogenous, processual (i.e. changing) matter. This approach to materials is much closer to the notions of indeterminacy, chance and affect, and intra-action between maker and material that we discussed in Chapter 2, and will develop in Chapter 4.

Technical styles

Alongside the French preoccupation with the *chaînes opératoires*, on the other side of the Atlantic, American archaeologists were developing ideas relating to style and technology, or technical styles. Heather Lechtman is a key figure in the development of these ideas. Lechtman (1977) argues that style and technological behaviour are linked:

> Technological behaviour is characterized by the many elements that make up technological activities – for example, by technical modes of operation, attitudes towards materials, some specific organization of labor, ritual observances – elements which are unified nonrandomly in a complex of formal relationships. It is the format or "package" defined by these relationships that is stylistic in nature . . . that is learned and transmitted through time.
>
> (Lechtman 1977, 4)

Technical styles are therefore organised, identifiable and consistent ways of acting technically. Lechtman's example of technical style comes from her study of early Andean metalworkers. She is particularly interested in processes of alloying and the achievement of certain colours, like silver and gold, which were considered as sacred. Whereas Old World metalworkers would gild the surfaces of metal objects to achieve these colours, Andean metalworkers 'placed the precious metal within the bulk of the object by incorporating it as one of the constituents of the original alloy from which the object was later fabricated' (Lechtman 1977, 6). This distinctively Andean way of casting and forming metal objects is what she defines as an example of a technical (or technological) style.

Although Lechtman does not explicitly discuss gestures or operational sequences these surely have an impact on her concept of technical style. If we combine these ideas, we have a powerful framework for thinking about how materials are worked and how artworks and artefacts are fashioned. In fact we can begin to see that gestures and sequences of gestures (operational sequences) lie at the heart of the concept of style. What is style but repetitive gestural expressions? If we link this with Lechtman's idea of technical style, and Conneller's refinement of the *chaîne opératoire*, we begin to see that styles consist of repetitive gestures relating to the working and intra-action with materials. Further we note that these material gestures produce a multiplicity of connections with other materials and other activities. Styles are therefore ongoing, and they produce material affects; these affects are the result of the specific circumstances of the intra-action between technology, materials and maker. Our discussion of style will be developed in Chapter 8.

Technology? Operational sequences? *Chaîne opératoire*? One might expect gesture and style to be discussed in a book on art, but not these other topics. What relevance do these have for a book on archaeological art? We would argue that

the making of works of art not only involves the depiction of icons on the surface of stones, as in the opening case studies, it is also a technical exercise involving working with materials in the round. We introduce the rich literature on technology because we believe it has much to add to the discussion of art. Let's look at a case study to illustrate the value of these ideas to the study of art.

Working clay, ivory and bone in the Upper Palaeolithic of Moravia

One of the most significant regions for the study of the Upper Palaeolithic is Moravia, in the south-east of the Czech Republic. We will focus on a group of sites that are described by archaeologists as part of the Eastern Gravettian, a group with allied material culture and technology that extends from the Czech Republic as far east as Siberia. The Czech regional group is known as the Pavlovian after one of the key sites: Pavlov. Pavlovian sites have been radiocarbon dated to c. 29,000–24,000 uncalibrated BP.

We will focus on the work of Rebecca Farbstein (2011) who has examined ceramic, bone and mammoth ivory materials using a *chaîne opératoire* methodology. Farbstein looked at materials from three key sites: Předmostí, Dolní Věstoniice I and Pavlov I. She also looked at materials from the individual burial known as Brno II. Dolní Věstoniice I and Pavlov I are situated less than 500m apart and are often discussed as part of a continuous cluster or 'megasite'. Brno II and Předmostí are located some distance further north and east from these sites.

Excavation at Předmostí took place in the late 1800s, while Dolní Věstoniice I was first excavated in the 1920s. There have been more recent excavations at Dolní Věstoniice I (in the 1970s and 1990s), while Pavlov I was excavated in the 1950s. As a result of the variable levels of information from these excavations, due to varying excavation strategies over time, Farbstein wisely compares data between sites, but does not rely on inter-site spatial information.

Pavlovian portable art is some of the most significant of the Upper Palaeolithic. Several hundred small figurines of men, women and animals have been uncovered. There is also an even larger and more diverse assemblage of nonfigurative art and personal ornaments. Unusual materials and innovative technologies occur among these sites, with some of the earliest evidence for ceramic art (Soffer et al. 1993; Vandiver et al. 1989) and the unique production of a series of decorated discs from mammoth molar from the Brno II burial (Oliva 2000).

Farbstein's work focused on the ceramic, bone and mammoth ivory. She is particularly clear about looking at the operational sequences, or *chaînes opératoires*, to understand how these materials were modified. Rather than focusing on a single material, she is keen to take account of the way in which individual *chaînes opératoires* inter-relate across materials. She begins her analysis by looking at material choices and identifies clear patterns of difference across sites. For example, at Dolní Věstonice I, the majority (91 per cent) of objects were made from clay or mammoth ivory, with twice as much ceramic art as ivory. Pavlov I was more

diverse. Here ceramic and ivory was also common, but 12 per cent of art objects were also produced from antler, and greater numbers of bone objects were found. A marked contrast in materials used was found at Předmostí where 42 per cent of the art objects were made of bone, and there was only a single ceramic art object. The materials found in the Brno II burial were extremely diverse. A unique three-part marionette of mammoth ivory accompanied the burial, and there were five discs of ivory, and three of bone (or mammoth molar). Supplementing these were two marlstone discs and one hematite disc. Ceramic and antler objects are absent from the burial context.

Clay for ceramic production was widely locally available in the form of the loess soils on which the sites were situated (Farbstein 2011, 406). Bone and ivory was obtained from mammoth, whether through systematic or opportunistic hunting (Farbstein 2011, 406). Debate continues on the scale and extent of mammoth hunting at these sites (Soffer 1993). Were sick or injured mammoths scavenged or does the presence of almost the entire skeletal elements of mammoths at Pavlovian sites, including those bones that do not bear significant meat, imply symbolic and social reasons for hunting? Either way, the mammoth seems to have great significance.

Farbstein establishes that quite different strategies of procurement took place at different sites. Her analysis of the remainder of the *chaîne opératoire* related to mammoth ivory is especially illuminating, involving the grouping of the operational sequences of ivory modification into five steps. Mammoth tusks form in concentric rings of ivory called lamellae (White 1997). What is clear is that two distinctive modification strategies occur to deal with the material characteristics of mammoth ivory: some Pavlovian ivory *chaînes opératoires* involved working the mammoth ivory in the round. In these sequences, makers segmented a piece of ivory from a larger tusk, burins and backed implements would have been used for fine sculpting, while polishing of pieces would have been done using limestone or ochre as abrasives. Other strategies for working ivory also occurred; these involved splitting the tusk longitudinally to remove individual lamellae. This technique is used to produce the engraved ivory 'diadems' from Pavlov I. These different ways of working ivory occur at different sites. Splitting the lamellae and engraving or decorating them is a significant feature of Předmostí, where it is used to make exceptional objects like the 'Venus' engraved into a mammoth tusk. Three dimensional sculpting of ivory was noted in more than 70 per cent of the art at Dolní Věstonice I; while at Pavlov I, a more complex method of working was used that involved 'extracting' complex three-dimensional forms from the ivory.

Bone artefacts were modified in fewer ways than ivory, with only two discrete *chaînes opératoires* occurring. One sequence retains the natural morphology of the bone and involves minimal modification. The other sequence involves greater modification, and the removal of parts of the bone, and intensive sculpting.

Farbstein's detailed analysis of the making of art objects from these sites allows her to reconstruct the technical processes of working, and the similarities and differences in working across materials. While makers at each site demonstrated a

variety of technical proficiencies, they also clearly preferred distinct *chaînes opératoires*. As she points out,

> the dominance of different ivory *chaînes opératoires* at [the sites of Pavlov I and Dolní Věstonice I] reinforces how different sociotechnical preferences, practices and sensibilities, and norms emerged in neighbouring locations at roughly the same time. This patterning may, in turn, suggest how physical engagement with material culture through production was a means of maintaining and expressing group identity.
>
> (Farbstein 2011, 411)

Farbstein's analysis exemplifies a key aspect of Conneller's argument concerning technological intra-action, observing a complex intra-action between technology, technological procedures and materials. At different sites in Upper Palaeolithic Moravia, different *chaînes opératoires* were used to work ivory, resulting in the production of quite different ivory artefacts. The ivory behaved in different ways according to how it was intra-acted with.

Marking and making: intra-action and affect

The case studies in this chapter demonstrate that the traces of past gestures produce marks that are archaeologically recoverable. But how do we define marks? We find the work of the philosopher Walter Benjamin (1996) useful in helping us clarify our thinking about mark-making. Benjamin distinguishes between marks and signs. For Benjamin: 'The first basic difference is that the sign is printed on something, whereas the mark emerges from it' (Benjamin 1996: 84). Additionally, as the cultural theorist Judith Butler points out, for Benjamin, the mark manifests; it does not signify (Butler 2008: 69). The traces of marking or working materials in the case studies in this chapter are not signs; they do not refer to distant concepts or prototypes, nor are they printed or carved onto an inert substrate. Instead, the marks trace the process of intra-action between person and materials. We might think of these traces as the affects of this intra-action. These affects might be fugitive and ephemeral or longer lasting.

In the case studies discussed in this chapter, the gestural analysis of Finnish and Comanche rock art and the working of clay, ivory and bone in Upper Palaeolithic Moravia, are very different. Yet each discusses intra-action and affect with remarkable clarity. In each case, there was a complex intra-action between technology, technique and material to produce certain affects. In the Finnish example, we saw how rock artists intra-acted with spectacular places in the landscape (vertical cliffs) by touching and smearing them with red ochre. The simple act of touching was one of the immediate affects of this intra-action, but there were other longer-lasting affects, including the handprints and other motifs in red ochre; reminders of the repetitive act of touching. In the case of the Comanche rock art, it was clear that Comanche rock artists intra-acted with the basalt rocks

of New Mexico to produce fine imagery whose visual impacts were relatively short-lived; there was an emphasis here on the affective power of performance. In the case of the Moravian Upper Palaeolithic, ivory was worked in multiple ways. In some instances, it was laminated to produce diadems that were then decorated, in other cases, ivory was sculpted in the round to produce a variety of figurines. The affects of the processes of attentive interaction are longer lived in these cases.

In each case multiple affects were possible from these processes of intra-action. In the Finnish example, other less visually spectacular locations could have been chosen, and more figurative motifs could have been painted rather than handprints or smears of ochre. The images could have been larger, making them more visually arresting; instead smaller motifs were painted. The New Mexico basalt could have been pecked with a stone tool to produce a visually striking image; instead it was scratched with a knife leaving a less visible trace. In Moravia Palaeolithic ivory carvers had not exhausted the possibilities of working mammoth ivory.

The permanence or ephemerality of gestures as traces or marks is significant to the affect these gestures enjoy. While the significance of gestures is key to the performance of both the Finnish and Comanche rock art, in a sense the gestures are the affects. In the Finnish example, these gestures leave a somewhat more visible trace in red ochre. In the New Mexico rock art, these traces are all but invisible. On the other hand, the analysis of gesture and its more permanent affects and effects is central to understanding the *chaîne opératoire* of ivory working. This is because each gesture leaves a more visible mark or trace, a guide for subsequent working. The analysis of these sequences of gestures is what composes a *chaîne opératoire*: it is a chain of observable marks produced by gestures, each mark acting as the cue for the next gestural action.

In this chapter then, we have highlighted the importance of gesture as a significant component of the archaeology of art. Our analysis of gesture in rock art and its role in the *chaîne opératoire* of working ivory, bone and ceramic during the Palaeolithic also underlines how important the analysis of gesture is to understanding processes of intra-action and their affects. In the following chapter, we will widen our analysis of gesture to consider the significance of experimentation, improvisation and performance.

4

EXPERIMENTATION, PERFORMANCE, IMPROVISATION

Andrew Meirion Jones

In the previous chapter, we discussed how an analysis of gesture was helpful for an archaeological analysis of art. We argued that gesture was central to understanding the processes of intra-action and the resulting affects, and effects that occur in making rock art images and Palaeolithic artefacts. Understanding particular gestures is obviously important, but we also saw that gestures are embedded in operational sequences or *chaînes opératoires*. The notion of *chaînes opératoires* gives the impression of controlled sequences of working. We have been particularly concerned to move away from this idea, and have emphasised the intersection between maker, material and technique. In this chapter, we will widen that discussion to think about experimentation, performance and improvisation. We argue that experimentation is central to understanding artistic practice past or present. It is the ongoing and unexpected character of experimentation that is important to keep in mind when analysing art. As we noted in Chapter 1, it is the experimental and difficult-to-define character of art that makes its study both worthwhile and exciting. Through the course of this chapter, we discuss three related processes, moving from a discussion of experimentation to an analysis of performance and finally arrive at a discussion of improvisation.

We commence our discussion of experimentation with comments from modern and contemporary artists, beginning with the contemporary sculptor Ian Dawson. Dawson works with, amongst many other things, that most synthetic of modern materials: plastic. In the opening discussion of his recent book on contemporary sculpture he observes:

> that gestures that later might become iconic are sown from simple intuitive responses, and come from a stance of not knowing; that artists, irrespective of the scale of their work, endeavour to work from a position of unfamiliarity, the act of discovery still the bedrock of the making process.
>
> (Dawson 2012, 9)

Contemporary electronic musician Mark Fell (2013) offers a similar account of experimentation. The problem, as he sees it, in contemporary electronic music is

the over-determination of the programming used in electronic music composition. Instead he argues that innovation has always occurred when musicians experiment with off-the-shelf programmes provided in electronic music equipment; innovations arise as musicians play with the tools at hand, making errors, and bending those tools to fresh and unexpected purposes. This approach to practice is not unique to sculpture and electronic music and is observed in a range of other artistic endeavours such as participatory or 'do-it-yourself' art (Dezeuze 2010). Anna Dezeuze describes a series of artworks from Lygia Clark's piece from 1966 *Air and Stone* to Yoko Ono's work from 1961, *Painting to Hammer a Nail*. *Air and Stone* only exists as an artwork when the participant takes a plastic bag, fills it with air, closes it with an elastic band, places a stone on one of its corners and holds it in his or her hands. In a similar sense, Ono's work exists only as an instruction to be performed, as participants are invited to hammer a succession of nails into a canvas using the hammer attached to the canvas.

These participatory artworks underline the indeterminacy and experimentation of artistic practice; though for participatory art, experimentation is experienced as much by the participant as the artist. Experimentation and open-endedness is also a feature of other forms of artistic practice, such as performance art and theatre (Carlson 1996, Goldberg 1979; Schechner 1988). For example, events such as the Cabaret Voltaire performances of Hugo Ball, Emmy Jennings and others in Zurich in 1916 were seat-of-the-pants affairs culminating in near riots on more than one occasion as the performers asked 'the young artists of Zurich, whatever their orientation . . . to come along with suggestions and contributions of all kinds' (Goldberg 1979, 56). Performance art and other participatory artistic practices are a component of what the art theorist Nicolas Bourriaud (2002) describes as 'relational aesthetics'. For Bourriaud, art is a state of encounter, and is a component of the social interstices that makes up human interaction.

Nor should we think that experimentation is solely confined to non-traditional art forms, whether electronic music making, performance art or participatory art, as it is also a significant component of conventional Fine Arts such as painting. In Chapter 2 we mentioned art historian James Elkins' (2000) discussion of the alchemical nature of painting, focusing on the nature of paint and colour. Elkins emphasises the instability and mutable nature of paints both on the palette and on the canvas. Painting, and the application of paint to canvas, is therefore also a deeply experimental process, as the painter combines pigments and deploys paint in visual expression. The painter Gerhard Richter expresses this process well when he observes of the painting process: 'something is going to come, which I do not know, which I have been unable to plan, which is better and wiser than I am' (quoted in Mitchell 2005, 226). Richter nicely articulates the experimental nature of visual expression as a painter works with his medium.

We have briefly examined a series of different artistic practices, and in each case experimentation appears to be central. It is through unfamiliarity, not knowing, intuition and a playful open-ended approach that acts of discovery take place. We have also seen that the materials of art, whether paint, plastic, electronic circuitry,

or a variety of sculptural components, are significant components in the processes of discovery that make up new artworks. How do differing materials perform under different circumstances, what happens when differing materials are assembled together? What happens when we do this . . .? Artistic practice is therefore a continuous process of discovery. We will explore these acts of discovery by looking at some of the earliest examples of art: the cave art of France, Spain and Australia.

Experimentation and the cave art of Europe and Australia

The incorporation and embellishment of different aspects of cave formations are familiar components of Upper Palaeolithic cave art (Lorblanchet 1989), with natural contours, bulges and projections in cave walls being used in making depictions. Examples of this begin with Chauvet, dated to between 32,000 to 30,000 years ago where projections from the wall were embellished to produce a horse's head (Conneller 2011, 37), and more famously a bison-woman figure (Figure 4.1) wedged around a rocky protuberance (Clottes and Lewis-Williams 1998, 45). Clottes and Lewis-Williams (1998, 87–91) also discuss this phenomenon amongst a variety of Magdalenian caves. For example, a bison's head was produced by embellishing a protuberance with black paint in the cave of El Castillo, Puente Viesgo, Cantabria, Spain, while at Niaux, France depictions of a stag's antlers embellish a hole in the rock. Most spectacularly, two bosses on the roof of the cave at Altamira, Spain are painted in red and black pigments to resemble bison. Similarly, one of the spotted horses at Pech-Merle, France is suggested by a natural feature of the rock shaped like a horse's head, evident particularly when the light is in a certain position. While many of these embellishments relate to depictions of animals, Clottes and Lewis-Williams (1998, 86) also note that the human form is depicted at Le Portel, Ariège, France in relation to natural reliefs resembling genitalia, and women carved in bas-relief at Le roc-aux-Sorciers, Vienne, France (Clottes and Lewis-Williams 1998, 44). Bas relief is stimulating in that it is able to collapse perceived oppositions between the visual and haptic (Deleuze 2003, 85–6).

These experiments incorporating the physicality of the cave wall into depictions are important, but we also see sculpting in the round using materials gathered from the cave environment, such as the fashioning of a male and female bison from clay derived from the floor at Tuc d'Audoubert cave, France; these seem to have been the outcome of a performance or dance associated with their production judging by the 200 heelmarks in clay, although Cook (2013a, 25) argues the bison figures were likely produced by five or six people. There is a third bison sculpture at Tuc d'Audoubert cave. It is unfinished and demonstrates how the other two were created: the outline has been made in the clay with handfuls scooped out. Close by it are clay balls that still have handprint impressions – ready to be used to sculpt. The two finished bison are on a raised platform – forming a stage. Beyond it, one can enter further into the cave. At Chauvet and Rouffignac, images are created by fingers being dragged through the wet clay (such as the panel of



Figure 4.1 Lion, bison and women hybrid, Chauvet Cave, France. Photo Copyright: Yanik Le Guillou / Ministry of Culture, France

the Owl, Chauvet; Clottes 2008, 36) – these traces reveal the white limestone beneath. Such images were done rapidly in semi-dark conditions. They evince an experimental intra-action between artist, materials and the emergent and exigent character of the cave environment.

Larger-scale manipulations of the cave environment also occur, as recently documented by Jean-Jacques Delannoy and colleagues (2013) at the striking rock formation known as the 'cactus' in Chauvet cave. Here fallen blocks were moved into position around this unusual rock formation to augment it. Arrangement of

the cave environment is also observed elsewhere at Chauvet where a cave bear (*Ursus spelaeus*) skull was found resting on a large block of stone. This deposit, dating to between 32,600 +/- 490 and 31,390 +/- 420 BP, was intentionally placed on a prominent block and is part of a complex configuration that includes dozens of other cave bear skulls nearby (Delannoy et al. 2013, 15).

The activities at Chauvet are comparable to activities documented at a site in Australia: Nawarla Gabarnmang rock shelter. Nawarla Gabarnmang is one of many rock art sites in Jawoyn country, Arnhem Land, northern Australia. It is marked out both by its spectacular rock art and its unusual geological formation. This large double-ended rock shelter contains impressive rock art panels covering large areas of the ceiling. Even more striking is the geology of the rock shelter, which consists of a gridded network of pillars supporting a thick multi-layered sandstone and quartzite ceiling. The dissolution of the bedrock was formed by a 'phantomisation' of the rock, causing a regular grid-shaped structure of underground cavities and pillars (Delannoy et al. 2013, 20). The floor of the rock shelter is ashy with scattered blocks, within the floor fill are rich archaeological deposits that include stone artefacts and animal bones (David et al. 2011). Human occupation at the rock shelter goes back more than 45,000 years.

The team of researchers documenting the Nawarla Gabarnmang cave were especially keen to highlight the links between the rock art and rock formations of the cave. Several rock pillars (numbers 1–8) to the south-west of the painted ceiling are particularly significant. This space had several blocks on the floor of the rock shelter that originally came from the ceiling and former pillars. Analysis of these blocks indicated that they had been reduced by flaking around the edges. Also blocks of hard layers of quartzitic sandstone were harvested for making flaked stone artefacts. Analysis of stone artefacts at the site indicated that all stages of manufacture were represented at the site, suggesting on-site manufacture of stone tools from this local raw material. Blocks that were no longer to be used in stone tool manufacture had their edges trimmed and often had ground surfaces, indicating they had been used to grind ochre, stone artefacts and other materials (Delannoy et al. 2013, 23). Smaller collapsed blocks from the ceiling were fragmented by percussion, with large fragments being removed to outer parts of the site, opening up space between the remaining pillars. Delannoy and team concluded that the rock shelter was not solely a geological formation but was fashioned by people in the course of stone quarrying, clearing collapsed blocks and painting the ceiling. This fashioning may have been done to increase living space in the shelter and create an unobstructed floor, but mapping of the locations where this took place in the shelter points to another surprising conclusion: pillars and blocks seem to have been removed to expose new flat surfaces of the ceiling to paint.

Delannoy and his colleagues describe these manipulations using the French term *aménagement*. *Aménagement* 'concerns how people are actively engaged in the construction of a given place through dwelling and inhabitation. Here *aménagement* is more than "management" or "refurbishment", for unlike these latter

concepts, it foregrounds the active social configuration of place as construction' (Delannoy et al. 2013, 13). We really like the archaeological observations that Delannoy and colleagues make at Chauvet and Nawarla Gabarnmang though we are not convinced the term *aménagement* helps us to fully understand this activity. The notion of *aménagement* creates a false sense of a distinction between active human agents asserting themselves on an inactive or passive material environment. We should also recall that cave environments are themselves emergent and changing (see also Fowles and Alberti 2016); the gradual build-up of calcite-rich sediments over time participates in a fundamental alteration of the surfaces and floors of caves. Multiple agencies are involved in the alteration of the cave environment. In fact, at Cosquer, there is a close intra-action between calcite draperies and the painting of black negative handprints (Clottes 2008, 98–99). As Conneller (2011, 38) explains for Magdalenian cave art, 'material interactions depend upon a complex, contingent interplay between the properties of particular materials, particular forms and understandings'. The properties of forms are not simply revealed through technical action, as if that action was revealing underlying aspects of the properties of sculptural forms. Instead action is contingent, occasionally novel aspects of forms are made visible or worked upon, while in other cases they remain unembellished or acted on; we are not looking at a universal 'way of seeing'. Forms come to have significance through play and experimentation; sometimes these experiments work, at other times they fail. It is this experimental character of working with the geological formation of the cave or rock shelter that we think needs to be emphasised.

These examples underline the point that experimentation occurs at a very early stage in human evolution. It is key to understanding how humans interact or intra-act with their environment to produce art.

Acts of discovery: experimentation, improvisation and performance

We began this chapter by discussing experimentation. One of the key points that we emphasised is that experimentation does not take place in a vacuum. Experimentation takes place with things. Experiments are always experiments with materials. Our case studies have shown that experimentation occurred with materials in the caves and rock shelters of Upper Palaeolithic Europe and Australia. Experimentation occurs then as people intra-act with materials. There may be a human decision to work from a 'position of unfamiliarity' as the sculptor Ian Dawson puts it, when discussing contemporary sculpture, but discoveries and surprises occur as the properties of materials reveal themselves during intra-action. These discoveries may or may not be acted upon: the process is ongoing.

At heart then experimentation is a kind of affective performance. Intra-acting with materials reveals new things: it performs something new. We could say that experimentation and performance are two sides of the same coin. In fact, every performance involves a degree of experimentation.

When we think of performances, we tend to think in terms of theatre. Archaeologists have been inclined to focus on the theatrical when discussing performance (Shanks and Pearson 1999; Inomata and Coben 2006), discussing issues such as audience, political display and communication. These aspects of performance are important, but here we want to emphasise the role of materials in performances, much as we have with experimentation. Another key feature of performances is that they produce effects and affects: performances are intended to carry out change (Carlson 1996; Schechner 1988; Inomata and Coben 2006; Shanks and Pearson 1999). We agree that performances are effective and affective, but we should also emphasise that performances are experimental: while they may effect change, they may also fail. As the geographer John-David Dewsbury (2000, 474) points out, performativity 'speaks of happening as an act of immediacy, of looking towards spontaneity and "never-before-occurring" situations encompassing aspects of risk and chance'. To perform then is also to experiment.

It is in performance that we encounter improvisation, to improvise means to embrace 'false starts, erasures, and abortive attempts to get things going' as the philosopher Gary Peters (2011, 1) puts it. The discussion below will draw out the experimental and improvisatory character of performance. We will argue that improvisation and experimentation yield important insights into the making process, and force us to think differently about representation (see Chapter 9). We will explore these aspects of performances now by looking at two well-known mortuary monuments and their accompanying art and artefacts: the tomb of the First Emperor of China and the Mausoleum of Halicarnassus.

Sculpture and performance at the tomb of the First Emperor of China and the Mausoleum of Halicarnassus

Until now, our examples have been derived from prehistoric societies. Here we want to draw on the rich data from two state-level societies to discuss the role of performance in funerary monuments, rituals and deposits. Jeremy Tanner has recently discussed both sites in a comparative approach based on Alfred Gell's notion of the 'art nexus' and theory of agency (Tanner 2015).

We will begin with the celebrated tomb of the First Emperor of China, Qin Shihuangdi (260–210 BC). Over a period of decades, Qin Shihuangdi defeated the kings of other Chinese states and incorporated their territories into his kingdom: he was a state builder. His tomb was placed at some distance from his capital, near modern Lintong in the foothills of Mount Li. Jessica Rawson (2007, 124–125) argues that his tomb was set apart from those of his ancestors to demonstrate that he was not dependent on them for his supremacy. The tomb complex is immense. At its centre is a mountainous mound covering a vast underground palace. The underground palace is a kind of microcosm of China with the Yellow River and Yangtze modelled in flowing channels of mercury.

The tomb of the Emperor itself remains unexcavated, however a series of features around the tomb have been excavated. Around the mound were a number

of pits. Within the funerary precinct itself these pits contained a large number of terracotta figures of officials and acrobats. In addition to these figures, the pits also contained the real wives and concubines of the Emperor who had accompanied him in his death. Alongside were sacrificed favourite horses. These were laid out in stable quarters with terracotta figures of grooms, along with half-size and fully functional bronze chariots. Beyond the walls of the funerary precinct were a further series of pits. These contained the celebrated figures known as the terracotta warriors or terracotta army (Figure 4.2).

Debates have focused on these remarkable terracotta figures. Some have sought to attribute the figures to Greek and Persian influence, while others have considered them as relating to Central Asian and Indian processes of exchange of technology and aesthetic viewpoints between states. Tanner (2015, 66–67) argues instead that we must view these figures as part of an indigenous Chinese tradition of displaying and depositing figurines in funerary contexts. He discusses the later Eastern Zhou period of the fifth and fourth centuries BC as witnessing an increase in the use of figurines in funerary contexts. To understand the context of the terracotta army he discusses the Eastern Zhou burial from Changtaiguan, Henan province which includes a compartment to the north of the central coffin housing two model chariots, and in the compartment behind this a couch, writing equipment and two figurines of secretaries: a fully equipped study. The figurines of the Eastern Zhou have clothing painted in black, with fine painted patterns representing expensive textiles. For added realism hair was glued to their heads,



Figure 4.2 Members of the terracotta army, China. Photo Copyright: Alamy images

and pieces of fabric to their painted clothing. Many of these earlier figurines also possess articulated joints. There is an equivalence between these figures and the flesh-and-blood human beings that they stand for. Quite clearly these figurines, and those of the terracotta warriors in the tomb of the First Emperor, are meant to perform specific functions. Tanner (2015, 68) points out that the terracotta army is an extension of a long tradition of material representation that blurs the boundary between the real and the representation of the real, or in the terms discussed by Alfred Gell: the prototype and the index. The blurring of these boundaries is highlighted by the burial of real people – the wives and concubines of Qin Shihuangdi – alongside figurines.

The production of the terracotta army speaks of both a practical and spiritual performance. The quality of the components of the terracotta figures was maintained by bureaucratic organisation. Figurine production was organised by work teams and the name of the foreman responsible for each figure was stamped on the back of the figure, or stamped with a personal seal, sometimes with the inscription 'gong' (palace), to identify palace workshops. In fact, the artisans who produced the terracotta army figures were members of workshops responsible for producing floor tiles, roof tiles and drainage pipes (Tanner 2015, 75); they were not artists or sculptors in the conventional sense. The various components of the figures were produced using a variety of mould technologies with their roots in ritual bronze manufacture. The terracotta army figures were also equipped with real weapons – swords and halberds – weapons that still remain sharp when excavated. The weapons were inscribed with the details of their production and name of producer. Some had been manufactured as early as 245 BC suggesting they were stored in the imperial armoury before their use by the terracotta army. Potentially the same weapons may have been used in the imperial military campaigns (Yates 2007). Added to this the terracotta warriors were equipped with stone armour: valuable for spiritual protection. There is a functionality then to the terracotta warriors: they were meant to protect the body of the Emperor from the spirits and demons of the world beyond. It is likely that these beings were the principal viewers or audience for the terracotta army (Rawson 2007, 140).

For the ancient Chinese, the concept of '*xiang*' (broadly, likeness or figuration), of which the terracotta army are an example, does not simply denote 'likeness', but instead is better expressed as analogues whose forms correlate with 'eternal features of the universe'. Because of this, figures are assumed to have practical effects. For example, clay images of dragons have the power to attract the rain, just as these mythical creatures were believed to (Rawson 1999, 17; Tanner 2015, 65). Figuration and the massing of armies of figurines was therefore a performance intended to achieve an effect. In the case of the terracotta army, the effect they were intended to achieve was spiritual protection, much as a flesh-and-blood army provides material protection.

The massing of figures around the tomb of the First Emperor of China echoes similar funerary displays in other regions of the ancient world. We will turn to another of these now: the Mausoleum of Halicarnassus (Figure 4.3), also



Figure 4.3 The Mausoleum of Halicarnassus, Turkey. Image Copyright: Getty images

discussed by Tanner (2015, 61). Mausolus was a Persian ruler who succeeded his father to become satrap of Caria, south-west Turkey in 377 BC. He co-ruled Caria with his sister-wife Artemisia until his death in 353 BC. Although subordinate to the Great King of Persia, he took advantage of Persian weakness to shape Caria as a separate kingdom. Construction of the Mausoleum began around 367 BC when Mausolus moved the capital of his new kingdom from Mylasa to Halicarnassus. Shifting the capital involved moving four inland communities to a new site on the coast.

The grid plan of the new urban site left a space reserved for the funerary precinct in the middle of the city. When complete, the mausoleum towered over the city and was visible from the harbour. The monument was designed by Pytheos of Priene, working in collaboration with four of the most famous sculptors in the Greek world: Scopas, Bryaxis, Leochares and Timotheus (or possibly Praxiteles). The monument takes the form of a temple-like structure or shrine placed on top

of a huge base. The roof was a stepped pyramid capped by a sculpture of a chariot with four horses. The bottom step of the base had life-size sculptures of Greeks and Persians fighting, on the step above this there were a series of statues of one and a third life-size scale whose subject is difficult to determine. The step above this has colossal statues of Greeks and Persians hunting panthers and boars, alongside a sacrificial scene. Then there is a frieze showing Amazons in battle (an *Amazonomachy*). Above this is the *stylobate* (a form of continuous base supporting a series of columns, familiar from Greek architecture). Between the columns in the *stylobate* are a series of one and two-thirds life-size sculptures. Tanner (2015, 61) suggests these may be ancestors. The two best preserved figures are of a man holding a sacrificial bowl and a woman in mourning. These have been attributed as representations of Mausolus and Artemisia, though there may be reasons to doubt this (Tanner 2015, 61). A frieze of chariots encircled the *cella* (or inner region) of the Mausoleum, while grouped statues of centaurs (a *Centauromachy*) were sculpted on the base of the vast chariot that crowned the Mausoleum.

The Mausoleum of Halicarnassus is an immense funerary edifice, though it is dwarfed in achievement by the tomb of the First Emperor discussed above. Yet, like the massed terracotta warriors at the tomb of the First Emperor, the Mausoleum is also a form of performance. We saw that the terracotta army was very much a performance intended for the spiritual world, the world beyond. By contrast, Tanner (2015, 70) argues that the Mausoleum was a performance intended to influence the living.

How was this performance achieved? To understand this, we need to think about ideas of the image in the Greek and Persian world. Greek concepts of the image – or '*eikon*' – differed substantially from the ancient Chinese notion of '*xiang*', discussed previously. *Eikons* were defined by their difference from the real, from the prototypes that they represented. In this sense, the sculptures on the Mausoleum could not be considered to be effective in the sense described for the figures of the terracotta army. Instead Tanner (2015, 70–71) points out we need to understand the statuary of the Mausoleum as an example of a *mnema*, or monument. Like Homeric poetry, *mnema* were physical expressions of the fame, deeds and actions of mythical heroes, part of a long-standing Greek tradition of memory and memorialisation. At Mausolus' funeral, which was celebrated in the theatre in front of the precinct of the Mausoleum, a prize competition was held for the best orators of the Greek world to compete in giving eulogies. Also, a play, *Mausolus* by Theodektes, was performed. The Mausoleum and its sculptures are performative prompts then for acting out memorably heroic and famous deeds. For example, Tanner (2015, 73) points out that the *Amazonomachy*, depicting Herakles' defeat of Queen Hippolyta, references (or in Alfred Gell's terms, indexes) Mausolus' heroic genealogy and the sanctuary of Labraunda, part of the cult centre of Caria where the axe of Hippolyta was preserved. The Mausoleum also referenced (or indexed) a more famous memorial monument: the Parthenon, Athens, built to commemorate the Athenian defeat of the Persians. By referring to mythical deeds past, and former-celebrated architectural achievements, the Mausoleum and its

sculpture and architectural style was a performance that allowed Mausolus to 'act on time past, refiguring it as a prefiguration of his and his dynastic successors' historical destiny' (Tanner 2015, 74). It also allowed him to act on the future, ensuring his immortality as a great king and founder of an enduring dynasty.

Conclusion: improvisation, performance, affect

We have examined an array of case studies, covering Palaeolithic cave art in two continents, and the mortuary monuments of ancient China and Persia. We have shifted from discussing experimentation to discussing performance. What have we learnt?

The accounts of the Emperor Qin Shihuangdi and of Mausolus naturally incline us to think about performances as human affairs. It seems obvious to us that Mausolus and Qin Shihuangdi caused these monuments to be fashioned in their honour. But this is to overlook the material components of these grand performances. Would these performances have still had the same impact if they had not been executed materially? The significance and impact of Mausolus' grand burial chamber remains with us today; we still describe these grand burial chambers as mausoleums. Their significance endures precisely because of their substantial material character. Our discussion of Palaeolithic cave art offers a counterbalance to historical discussions of the agency of certain powerful individuals. With our discussion of cave art, our attention is instead directed towards the intimate intra-actions between people and materials; a form of engagement that is both performative and experimental. An experimentation that involves a complex contingent interplay between the properties of particular materials, particular forms and specific understandings.

These grand performances were also deeply experimental. We saw that the famous terracotta warriors of Qin Shihuangdi were fashioned using moulds designed for roofing tiles and ritual bronzes. Similarly, the terracotta figures themselves drew on earlier forms buried in Eastern Zhou tombs. Likewise, the Mausoleum of Mausolus drew on the Parthenon; as a memorial it referred to past deeds and actions. In both cases, these material performances drew on past material forms to fashion new forms. One of the characteristics that is absent from the case studies we have looked at is any sense of the improvisatory. The Emperor Qin Shihuangdi and Mausolus both caused monuments to be made, while the Palaeolithic makers of cave art fashioned the cave environments. This gives us a false sense of simplicity and directness to the act of making; it almost seems as if the makers of artworks – whether Palaeolithic artists or craftspeople working under the Chinese Emperor – directly caused these things to be made. This gives us a false impression of human agency and intentionality. It also provides a deceptive account of how things are made: the prototypes of prior material forms are not simply cast into subsequent material forms. The making of things involves a degree of improvisation and craft.

What do we mean by improvisation? In *The Philosophy of Improvisation* the philosopher Gary Peters (2011, 117–143) identifies the tension between

representation and difference as a key concern of the improvisor. To improvise means not to slavishly repeat a performance from a given template or representation, but to work with that template/representation and cast it afresh. As Peters (2011, 143) explains, the improvisor 'takes on the responsibility to repeat the same in such a way that each repetition makes a difference'. In some senses, we can see this process occurring in our case studies. Our Australian and French Palaeolithic cave artists did not simply copy the cave environment, they improvised and experimented with it, modified it and made it anew. As noted above, the craftsmen of the Emperor Qin Shihuangdi improvised with prior terracotta and bronze manufacture methods to make the terracotta army. Again, the Greek notion of the *eikon* underlines this idea, as *eikons* were understood to differ from a prototypical form. The *eikon*-like character of the Mausoleum of Halicarnassus is evident in the statuary that adorns it, with its echoes of the Parthenon.

Improvisation is performative, it involves working with earlier prototypical forms, but those forms are re-made and re-formed in a new and different way. This re-fashioning occurs during the process of performance. It is not simply that artworks are performed or made like so many copies produced on a conveyor belt in an industrial manufacture process, instead they are performed precisely so that we can see what new form they will take. Performance is therefore improvisatory and unexpected in its outcome. Moreover, improvisation is ongoing: artworks lead on to fresh artworks, each form being an improvisatory performance of the previous. In that sense improvisations are one of the affective outcomes of performances. It is the ongoing and unexpected character of performing improvisation that we want to underline here as this has an important bearing on key issues relating to the archaeology of art, including style (Chapter 8) and meaning (Chapter 9).

Much of what we have discussed in this chapter has focused on outcomes, on the achievement of performances. We wish to emphasise not simply the end result of performances, but also the performing itself; the improvisatory and experimental character of performing. By redirecting attention to improvisation and experimentation, we sharpen our senses to the expressiveness of things coming into existence. The improvisatory and experimental character of performances gather or transduce a series of forces, and produce a series of potential affects. Improvisation with things is relational, material improvisations draw on and gather previous forms to make things anew. Performances might also be events through which human experience is altered and affected. Here improvisation and experimentation may also be transformative, offering thresholds of change which usher in new ways of becoming; that invest new worlds of experience.

5

MINIATURISATION AND SCALE

Andrew Cochrane and Andrew Meirion Jones

> *To understand a real object in its totality we always tend to work from its parts. The resistance it offers us is overcome by dividing it. Reduction in scale reverses this situation. Being smaller, the object as a whole seems less formidable. By being quantitatively diminished, it seems to us qualitatively simplified.*
>
> Lévi-Strauss, 1966

When Claude Lévi-Strauss introduced an exhibition of Jōmon dogū and other things at the Maison de la Japon, Paris in 1998, he described the decorated works as highlighting the beginnings of civilisation in Japan (Takashi et al. 1998). That art has the power to elevate structures is in itself illuminating. The term Jōmon (meaning cord marked) refers to when fired clay was first created in the Japanese archipelago, around 14,000 years ago (Kobayashi 2004a, 51; Mizoguchi 2007, 185; Kaner 2009, 15; Kaner and Steinhaus 2016, 86). Dogū means earth and spirit, and is often used to describe scaled anthropomorphic sculptures. Fired and burnt clay figures are found the world over, from Europe, to the Near East, Asia, Africa and the Americas (e.g. Bailey 2005; Hofmann 2005a; Marcus 2009; Gheorghiu and Cyphers 2010; Lesure 2014; Ursu and Ţerna 2014). In a sense, they are ubiquitous, and yet they were not made everywhere (Ucko 1968; Naumann 2000; Kobayashi 2004b; Thomas 2005; Faust and Halperin 2009; Kaner 2009).

It is significant that dogū are made from clay. Carving wood or bone is a reductive process – making objects from clay is an additive process that brings together materials and transforms them through fire. Most dogū were already broken when they were found and were probably fragmented deliberately (Kobayashi 1977; Taniguchi 1990; Bausch 2010). Broken parts were distributed across dwellings, middens, sites and villages (Masayuki 2009). The dogū from Mori-machi, Shizuoka Prefecture, Japan, is an unusual example of a figurine that had a complex journey, being broken and then stuck back together with white clay (Bailey et al. 2010). Broken figurines were also found in deposits with animal bones and shattered cooking pots. Fragmented figurines discovered in such contexts prompt a

rethinking of what we might think of as domestic rubbish; the notion of mixed media is probably a better place to start.

Many dogū are at the extremes of what we might describe as human – only a curve to suggest buttocks, a penis, breasts, or a few dots to signal eyes (see discussions below). They are interesting examples of the minimum requirements to express a human form. Such works lead us to wonder where the impulse to make human forms comes from. Some have questioned if dogū represent humans or purely imaginary beings (Kobayashi 2004b). Although some dogū feature recognisable body parts (e.g. an arm or leg), we are limiting our understandings if we think of them as just male or female. In some cases they are more androgynous; in other cases, it might be inappropriate to assign human gender at all. The idea that identifiable or exaggerated female forms relate to the worship of a fertility or mother goddess (e.g. Nakaya 1930; Kosugi 2002) is increasingly contested (e.g. Ikawa-Smith 2002).

The power of small things

Miniaturisation is a common material practice (Foxhall 2015), and miniature artefacts are derived from a range of contexts, from Neolithic Turkey (Meskell 2015), to Iron Age and Roman periods in western Europe (Kiernan 2015) and the Aegean in prehistory (Knappett 2012). The oldest human expressions of form are very small. We have a tactile and visual relationship with things that can be hand-held, combining a sensory experience with a dramatic shift of scale. Hand-held dogū can provoke a number of responses, suggesting vulnerability, protection and intimacy. The making and keeping of small sculptures is an activity widely shared across all human societies (e.g. Joyce 2009, 25; Lesure 2014), and some experimental psychologists suggest that encounters with small things can change our perceptions of time and space (e.g. DeLong 1981; 1983).

That dogū exist might suggest that they actively influenced people in novel ways, rather than merely being passive ornaments. As such, the miniaturisation of things might be less about accuracy through representation and more about experimentation (Bailey 2005, 29; see also Bailey et al. 2010). Scale often works as an impressive strategy that charges things with psychological tensions, generating intense sensory and emotional experiences. It can also influence understandings of time and enhance cognitive speeds (DeLong 1981; 1983). This can result in feelings that are both empowering and interesting, but also unsettling or alienating (Nakamura 2005, 32). Gell (1999b) remarked on some of these effects when he recounted being entranced by a matchstick model of Salisbury Cathedral, England. He recalled being captivated more by the model than the cathedral itself; it was for him dexterity in objectified form, operating by bringing both the technologies of enchantment and the enchantment of technologies together. With the smaller scale, only certain traits of the full size are ever present, rendering the diminutive a compressed and powerful version of the larger one. These

intra-actions operate within an intimate sphere and offer different ways of experiencing (Bailey 2005; Cochrane 2008; Mack 2008; Jones 2012).

Some archaeologists have turned to the ethnographic record in an attempt to illuminate the unfamiliar (e.g. Watanabe 2001; Alberti 2013a), while others have sought to interpret via depositional contexts (e.g. Taniguchi 1990). Such approaches have only had limited success in Japan, where many of the dogū found have no clear context. More recently, ceramic figures have been approached in terms of how they are seen. Bailey (1996; 2005) suggests that their appearance presents a new way of seeing, or a new philosophy. Such perspectives are beyond the mere representation of a truth, and move closer to the position that figurines create uncertainties for people (Kaner 2009, 16). Dogū are not just good to look at, they are also good to think with – à la Lévi-Strauss. Today, they can still provoke us to think about how people experience life, how they cope with the stresses of existence, and how they perceive their place in the world (Ryuta 2005; Kaner 2009; Rousmaniere 2009).

No ghost just a shell

Discovered while digging potatoes in 1975, and elevated to a National Treasure of Japan in 2007, the Chobonaino figure (see Figure 1.3; Figure 5.1) experienced a varied journey. Made over 3500 years ago in the Late Jōmon, the figure was deposited in a pit with a jadeite pendant and fragments of a lacquer object (Abe 2007; Kaner 2009). These things were associated with contemporaneous building structures, a stone circle, and other pits. Interpretations have often followed the traditional route, and depicted this figure as representing either a male with a beard, small breasts and penis; or a pregnant female (see discussions in Bailey 2009; Takashi 2009). Interestingly, both positions incorporate the same occurrence of impressed circles into the clay as representing something else not present in the figure (e.g. pubic hair, beard hair or pregnancy). If indeed the circles do symbolise facial hair, one still cannot ascertain gender; age might be a better index. That



Figure 5.1 A Jōmon dogū – Chobonaino dogū. Image Copyright: Doug Bailey

some see the Chobonaino sculpture as male is interesting as historically nearly all dogū are regarded as female. Ikawa-Smith (2002) points out that the dominant interpretation of these figures is that they are mainly biologically females who are either pregnant (e.g. with a swollen belly) or are awaiting pregnancy (e.g. without a swollen belly). Key to progress is distance from interpretations that gender figurines (e.g. Hudson and Aoyama 2007; Matsumoto and Kawabata 2010), and essentialist accounts of women in the past as just being baby-making machines; magical, spiritual or otherwise. The idea that figurines have the procreative powers of women, but are then broken and discarded after they have served their purpose, is particularly unhelpful (Bailey et al. 2010). Instead, Ikawa-Smith (2002) proposes that we are best starting from the position that figurines do not represent and in fact transcend human sex and gender (see also Kosugi 2003; Kobayashi 2004b; Togawa 2004).

The Chobonaino dogū is about 415mm tall, and is the largest example of its type known to date. It is lacking both arms, but what remains is in pristine condition. Lower portions near the top of the dogū (its chin area) still contain traces of black lacquer, and it is thought that the entire piece was painted. The face is positioned forward, and is tilted upwards and slightly to its left. There is a protuberance on the top of the dogū, and this is often thought to present a topknot, or high chignon. The face is characterised by a continuous monobrow that joins the nose (this is seen in many Jōmon dogū). Clay is coiled, and has been added to the exterior of the body, with incised notches; this has created circular, triangular and diamond-shaped motifs. The upper and lower parts are the most decorated with the midriff sections depicting open areas of burnishing. Movement is most conveyed in the decorated areas, especially when juxtaposed to the middle sections. The vertical ribbed line on the front of the dogū joins the top to the bottom and creates a visual linkage. The heavy symmetrical areas in both regions meet the dynamic thrust of a linear motif.

One of the intra-actions the Chobonaino dogū participated in was with a CAT scanner at a hospital in Hakodate city, Japan. This produced an image of the hollow interior of the figure, and enabled us to witness how the dogū was made. For example, the legs were constructed from coils of clay, while slabs formed the torso, and a rounded clay ball with finger incisions created the head (Bailey 2009, 66). The lower portions of the dogū (its shins if you like) are connected together by tunnelled tubes of clay, which join the hollow legs of the figure. It is suggested that the tube is a design feature to allow air to escape and move during the firing process; a technique that is also used in later periods (Takashi 2009, 88). Takashi (2009) considers the hollow interiors and tubes from the perspective of the maker(s).

A refreshing approach to thinking about this figure was offered by Doug Bailey (2009). Rather than confine discussion to aspects of representation, consideration is given to the importance of motif repetition and methods of making. Three key techniques have been employed to great effect: corded marking, ribbed lines and circle impressions. The rhyming of these forms into one work generates creative

and subtle processes. Following Boas (1955, 40–41), we note that the repetitions of pattern suggest an evenness of surface. Such imagery defies simplistic interpretations, such as this is: a male, a god, an animal, an ancestor and so on (Watanabe 2001). There is little to allude to it representing an individual (Bailey 2009, 65; see also Kobayashi 2004b, 155). Bailey (2009, 67) focuses on the later interactions (or intra-actions) of the figurine and considers it as a container and its role in the pouring of essences (e.g. liquids, smoke, spirits).

For Maringer (1974), figurines are not merely to be looked at – there are tactile encounters, with some being rubbed on their bellies to possibly affect successful outcomes (see also Bailey 2014). The Chobonaino dogū encourages one to touch it (even today), to hold it and feel its weight and solidity. It is heavy and big; two hands are best for handling. That it is hollow stimulates an interesting balance between volume and void. This is not a peripheral thing – it demands full attention (Bailey 2009, 66). Dogū in general invite being picked up, held in the hand, turned around and felt (smelt and tasted?), allowing many of the textures and details to be absorbed. Their form as durable, portable, sometimes miniature, three-dimensional things do, however, create corporeal choreographies (Bailey et al. 2010). These engagements can result in the handler feeling empowered as they easily manipulate the sculpture, but at the same time unsettled, as they may feel gigantic in relation to it (Tilley 2004, 137; Bailey 2005, 33; Nakamura 2005, 33).

Getting a handle on things

What happens when one handles a dogū (be it with one or two hands)? What happens if you rub its belly as Maringer (1974) suggests? We briefly consider some of the implications of such relationships by looking at some more recent examples. Franz West was an artist who created interactive art with the assertion that it was the use of art not its appearance that matters most (Fleck et al. 1999). Inspired initially by the avant-garde Actionists and literary groups in Vienna during the late 1960s, West eventually developed a fascination with the writings of Ludwig Wittgenstein (Badura-Triska 2006). West posited that performances are never fixed, but rather they change with the context of their application, only ever occurring within spaces of exchange. For West, art is meaningless and functionless unless it is interacted with – performance is key.

From the mid 1970s onwards, West began creating portable works termed ‘Adaptives’ (Passtücke) – things that allow direct experiences beyond the mediation of language (Verwoert 2003). Varying in scale, but smaller than average human size, the Adaptives are found objects mixed with papier-mâché, wire, cloth bandages and plaster. The Adaptives are abstract and anamorphic shapes that can be held, manipulated, hugged or positioned in any manner chosen. They do not represent. The Adaptives sometimes look soothing and invite the handler to press them snugly into their body, and yet they almost always never fit – which can result in feelings of discomfort. These interactions with Adaptives often lead to the striking of amusing poses – destabilising the spectator and rendering them as

performer – often facilitating a corporeal comedy (Storr 2003; Marcoci 2007). Here, activation is achieved by contingent situations and by the objects inducing play. The objects percolate the uncanny, disrupt the quotidian, releasing tensions and previously unconsidered bodily gestures; the handler adapts to the held. These performances with things are considered by West to be both liberating and acute reminders of existing repressions (Verwoert 2003). The Adaptive things – as prosthesis – often create unease and site-specific dislocations.

West argues that his artworks present perspectives on how some people negotiate things within the world. With the suggestion that Adaptives are prosthetic additions to the body, West attempts to blur modern distinctions that separate movement, human body, thing and environment. West does not, however, communicate his ideas as text – it is usage and participation that articulate. That understanding and experience can be stimulated by physical contact and corporeal expression, presents challenges to how some archaeologists think with material. West poses questions regarding not only the power of things, but also the roles of play and performance in highlighting norms, and then subverting them. Following West, can we ever interpret the meaning of thing or image via notions of language and text alone? Or do we need to start handling and looking at them more and see what they do to us? How do seemingly functionless abstract things and images work? At what point do the things we create stop adapting for us and when do we start adapting for them? We consider these questions with further case studies below.

The power of re-facement

Around 3500 years ago, in a Late Jōmon village (c. 1500–1000 BC) on the south-western slopes of Mount Yatsugadake in central Honshu (Nagano prefecture), Japan, a group of fisher-hunter-gatherers buried a ceramic figure, possibly wrapped in the arms of a deceased member of the community (Kaner 2009, 36–38). The sculpture is around 340mm tall, is hollow, with a burnished and shiny surface (Figure 5.2). Extensions to the side give the impression of arms as a crucifix, with incised spirals, where you might imagine hands to be. The middle of the sculpture appears distended, with an additional protuberance in the centre surrounded by radiating circles. Incised lines, spirals, dots and dashes, dominate the front and rear upper portions. The dogū can stand on its own, due to bulbous and thickly made legs; in a sense, they are like inverted pots. Incised lines below the front distension are often interpreted as 'realistic female genitalia' (Kaner 2009, 117). It is on the upper back of the sculpture, we find evidence for erased cord-marking motifs, followed by later burnishing; defacement and re-facement.

In investigating the motivations for why some people feel the need to erase images, Latour (2002, 21–30) devised a rough categorisation comprising five types of impulse for eradication. These include: people against all images; people against the freeze-framed image; people against their opponents' images; innocent vandals and acts of subversion. We may never be able to determine all the contexts that occurred in the Jōmon (if any), but we can consider what happens

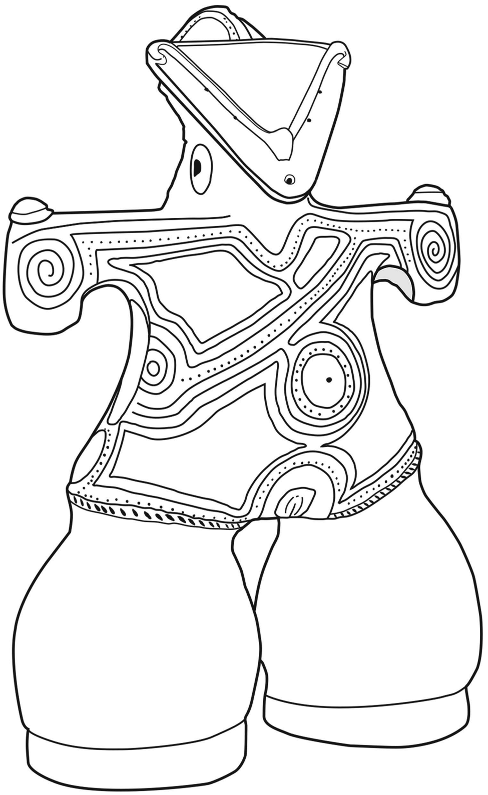


Figure 5.2 A Jōmon dogū – Yatsugadake dogū. Image Copyright: Ian Dennis

when people erase earlier markings and maybe some of their motivations. Here, we are interested in acts against freeze-framing and acts of subversion, as they resonate well with the performance of marking sculpture. As such, this superimposed burnishing may have been employed as a technology of momentary inversion. The motifs themselves may have been the result of re-actions as opposed to the instruments for progressive social construction. Relationships and mixtures of people, sculpture and images may have been ambiguous, needing to be constantly worked at – against freeze-framing. The adaptations of images may have assisted in producing these renegotiating practices. Such improvisations can be contradictory, messy, problematic and stimulating.

Erasure of the dogū surface and of previous motifs is therefore not merely a matter of making things disappear as there is always a residue produced, some change in the surface, some reminder of action taken – it is illuminating power at its greatest (Taussig 1999, 2). We are left with not just an absence, but rather an active and ongoing palimpsest. What we have is permanence and impermanence in flux;

the overlay may be an attempt to preserve. We have a creative form of destruction (Zepke 2005, 124), in which new images, media and works are presented.

If this figure has a face, it is hidden by what appears to be a triangular mask that tilts upwards, and is attached by incised lines and dots that look like straps. Masking and un-masking, concealing and then revealing, deception and honesty are universal human traits – although their expressions are more nuanced than this statement. Masks are mostly designed to emphasise a face, and are often placed on a head – although they can be placed elsewhere. Masks are context dependent, and can operate within a multitude of settings – sometimes the same mask can perform contesting roles (Bailey et al. 2010). Masks can facilitate protection (e.g. gas masks); they can provide containment (e.g. flu and virus face masks); they can provide entertainment (e.g. clown masks); they can project ideas (e.g. Jason Voorhees' hockey mask from the film *Friday the 13th*); and of course they can disguise identity and create new personas. Masks enable plasticity. All people at one time or another don a mask – whether it is physical or otherwise – for masks allow us to imagine the world in different ways.

Masks are not always allegories for other things. For instance, in Edgar Allen Poe's *The Mask of the Red Death*, an uninvited guest appears at the party wearing a mask that gives the impression he has the pestilence. The twist in the story is that he really is diseased under his mask. Here, the mask projects that which it hides. The mask can also present connections – assertions of heritage – and the journeys of assembled lives. Masks operate within drama and performance, whether staged or otherwise (Mack 1996; Cheng 2009). By wearing the mask, at some level one can reveal the essence of others. In this sense, the mask does not hide or disguise – it makes visible. The mask can also facilitate displacement; masks are not constrained by representation or realism (Taussig 1999; Bailey et al. 2010). In this capacity, masks attempt to penetrate beneath surface understandings of the world. That a dogū would want to or is forced to wear a mask is interesting. Masking and re-facement might ultimately stimulate because we are denied (or teased with) full access.

In the land of the Yungas: the La Candelaria pottery of Argentina

Like Alice in her travels to Wonderland, and for many in the West, we cannot be both in this world and in the miniature world simultaneously. The spectator or handler of a small thing continuously fluctuates between being in the place of the miniature and being outside of it (Bailey 2005, 42). The result is a tension that points to issues inherent in Western perceptions, and they are similar to the effects of the narcotic (Bailey et al. 2010). Jones (2012, 32) builds upon Bailey's (2005) insights and highlights that all scale (be it object or environment) is factored upon relations to the human body. This makes sense, as historically the most successful measuring units in the West have been based upon the body: the foot, the hand and the thumb. Many people will still measure a distance with their feet to gauge

an estimate, and some still scale a horse with their hands. Even though bodies differ, the degree for measurement is mostly negligible. For instance, a person setting out a timber building with UK size 8 boots, will only be a finger's breadth different from someone walking with size 10s. Someone with a size 5 will walk one less full step than a size 10 (Cairns 2007, 24). How important this difference is depends upon the perceived accuracy needed for the building – it is probably acceptable for a megalithic tomb or LBK longhouse. Sizing the world from your own body – the ease of it – has been argued to account for the resistance to the more accurate metre system since Napoleonic times. Apparently, even Napoleon I conceded that the traditional human-body-based scale systems would endure in common usage (Cairns 2007, 14).

Yet, can this be true for all places and all bodies, at all times? Alberti (2013a) suggests not; by challenging the notion that scale is based as default upon the human body (as understood in the West), he opens interesting possibilities. Alberti (2013a) is influenced by Viveiros de Castro's (e.g. 1998; 2012) work on perspectivism as a means of thinking through things differently. In the contemporary West, many agree that there is one reality (one world), but that there are multiple ways of interpreting it. Perspectivism inverts this idea; instead we have multiple worlds but with only one way of interpreting them. How we think with things is dramatically altered if we change our perspectives. If the perspective is different, will the default scale be different? An archaeology of art can begin to answer such questions and move beyond the recent criticisms of using ahistorical and universal perspectivism (see Weismantel 2015).

For example, Ben Alberti (2013a; 2013b) discusses first millennium AD La Candelaria miniature ceramic pots found in north-west Argentina (Figure 5.3). Created in a zone located between the Andes and the lowlands, the pots display what are often seen as a mixture of anthropomorphic and zoomorphic elements with mark-making (Alberti 2013b, 107). Such elements are not, however, thought of as being inscribed into/onto the body of the pot, but rather are thought to grow with the pot in an often volatile fashion (Alberti 2013b). Modifying a human body is regarded as the same process as modifying the body of a pot; both are done to affect stability (Alberti 2012).

In perspectivist accounts, the human body is not limited to a single size. Oscillations in scale may occur, and spirits may be experienced as either diminutive in size but brilliantly decorated, or huge and grotesque (Alberti 2016, 10). In the case of the miniature La Candelaria pottery, Alberti (2013a; 2016) argues that size is not the measure of scale, but rather the intensity of decoration offers a measure of scale. The more intensely decorated or grotesque the pot, the greater intensity of 'body' it was. Here, the human body is not limited to one size, and can be experienced in different ways. Bodies contain the potential to transform into other bodies; each body, therefore, contains all bodies (Alberti 2013a, 51).

These 'body-pots' therefore disrupt traditional ways of seeing scale and difference; instead we are describing scales not as fixed coordinates but as potentials. We develop the idea of scales as potentials in our next case study.



Figure 5.3 La Candelaria pot, Argentina. Photo Copyright: Ben Alberti

Go figure! – having things to do in the Scandinavian Iron Age

In the early part of the Scandinavian Late Iron Age (AD 550–1050), gold foil figures were created in Denmark, Sweden and Norway. They are small (c.10–20 mm in length) and light (c.1g in weight). These tiny figures (Figure 5.4) often appear to be human-like in shape although more animal-like ones are known (Back Danielsson 2010). Some are thought to wear masks (Back Danielsson 2010, 83). Most are created by stamping with bronze patrices (relief moulds), while others are cut direct from thin gold foil (Back Danielsson 2012). They are deposited in a variety of locations, including unique buildings, workshops, secondary burials, bogs and hoards; few are found in everyday contexts (Back Danielsson 2012, 36–37).

Interestingly, after creation, the gold foil figures are often manipulated, and further worked with. Here, we have ongoing and unfinished business, which can include: the placement of gold bands, piercings, adding protuberances, and bending the lower parts of the figure (Back Danielsson 2012, 38–41). The bending



Figure 5.4 Gold foil figurine, Sweden. Photo Copyright: Ing-Marie Back Danielsson

of the figure could be thought of as it being placed in a seated posture, or an uncomfortable stress position. More aggressive alterations take the form of cuttings, scarrings, blows with blunt and sharp pointed objects. Like the dogū mentioned above, some are thought to be wearing masks. That incursions occurred within gold is deemed important, due to its intrinsic and special qualities; the universal significance of gold is argued from its earliest usage (e.g. Renfrew 1978; 1986; Leusch et al. 2015). Yet, Back Danielsson (2012) highlights that we cannot assume or take these figures for granted. We are reminded not to forget that these small things can be both truthful and deceitful agents.

In reviewing the figurine modifications, Back Danielsson (2012) presents a similar perspective to Alberti (2013a; 2013b; see above), in that the gold figurines and human bodies were considered equivalents. Like Alberti, Back Danielsson (2013, 335) argues that to describe these gold foil figures as miniature is to delimit them: it establishes a distance, or specific relation, between figure and beholder. Manipulations and additions are part of the journeys of the things. It is not all about being small; the manipulation of the figures is an equally important characteristic that marks out the things as being ‘in flux, fickle and distinctive’ (Back Danielsson 2013, 339). Like the La Candelaria pots, the gold foil figures of Scandinavia indicate that we cannot take scale for granted, we also need to regard miniature things as potentials, as components of matter in flux.

Images of the gigantic: Chavín de Huántar

We have considered the outcomes of engaging with miniature things. We now discuss the opposite: the gigantic. What occurs when people encounter and engage with the colossal? Chavín de Huántar, Peru, was one of the earliest archaeological sites to be described in Peru, and it is now a World Heritage Site. The sixteenth-century conquistador Pedro Cieza de León was so impressed by the scale of the finely carved monuments he claimed they were built by a race of giants (Quilter 2014, 139). The sheer size of Chavín de Huántar's architecture, the ingenuity and skills of its engineering, and the visions expressed in Chavín's stone carving were never exceeded in Andean prehistory. The most famous decorated monoliths are: the Tello Obelisk, Lanzón, Raimondi Stela, Yauya Stela, and the Black and White or Falcon pillars (Weismantel 2015, 143). They have impressed antiquarians and archaeologists since their discovery.

Chavín de Huántar lies at an elevation of 3150m in the upper end of the Conchucos Valley, at the junction of two rivers, the Mosna and Wacheqsa. At this relatively low elevation the site was well placed for contact with the tropical forest, the sierra and the coast (Quilter 2014, 140; Weismantel 2015, 145). The site itself consists of a large monumental complex and an adjacent settlement. Dating between c.1000–1300 BC, the ceremonial centre is the result of several hundred years of construction, remodelling and addition. The complex covers an area of 10 hectares (not all has been archaeologically explored), with a total site area (including ceremonial complex and town) of 50 hectares. The most important feature in the site is a U-shaped structure facing eastwards, with a total length of 100m. This building is known as the Old Temple. Nestled within the arms of this structure was a sunken circular plaza 21m in diameter. As the site grew in importance, the old right section of the U-shaped structure was expanded with the addition of 45m of wall length. This shifted the asymmetry of the temple complex from a dominant left to a dominant right setting. The plazas in front of the complex were then completely reoriented towards a new entrance, known as the Black and White Portal, emphasised by black and white stone steps. Black and white distinctions are further highlighted by carvings on the pillars around the entrance. Stone steps dominate access to differing levels, and it is argued that movement via the steps in a vertical and horizontal manner was important for the performance of the temple (Quilter 2014, 140).

Quilter (2014) discusses the experience of visiting Chavín de Huántar, and the way it was orchestrated and managed. One of the elements of this choreography was the art. The imagery of Chavín de Huántar has no precedents or descendants; it is unique (Weismantel 2015). It is essentially representational, but it is executed in a style and convention that idealised phenomena, particularly animals. The images blur boundaries – they are composites of mixed-things and species. Here, we have juxtaposition and assemblage, working together. It creates an unusually intense visual experience and provokes reflection (Quilter 2014, 142; Weismantel 2015, 148). Weismantel (2013, 29) offers further description of the carvings:

> The style of the carvings likewise offers contradictory perspectives on a single body: as in ancient Egypt, figures often display a frontal torso with legs and feet in profile. And as in Northwest Coast and other Native American art, X-ray depictions, split representations and the 'flayed-pelt convention' reveal alternating views of the interior and exterior of the body.

As with our dogū and gold foil figures, discussed above, the carvings at Chavín de Huántar, appear to be wearing masks. We can see a body that appears to be human, with a mask of snakes and birds. This remarkable imagery was paralleled in the architecture of the site which also mixed together modular units and pictures (Figure 5.5). One of the features that exemplifies this best is the Raimondi Stone (discovered at the site in the nineteenth century by the naturalist and chemist Antonio Raimondi); the Stone still presents a coherent image when one is upside down. That the pictures work whichever way you stand (on your head or otherwise) creates a powerful sensation of awe. Much of the art can only be seen

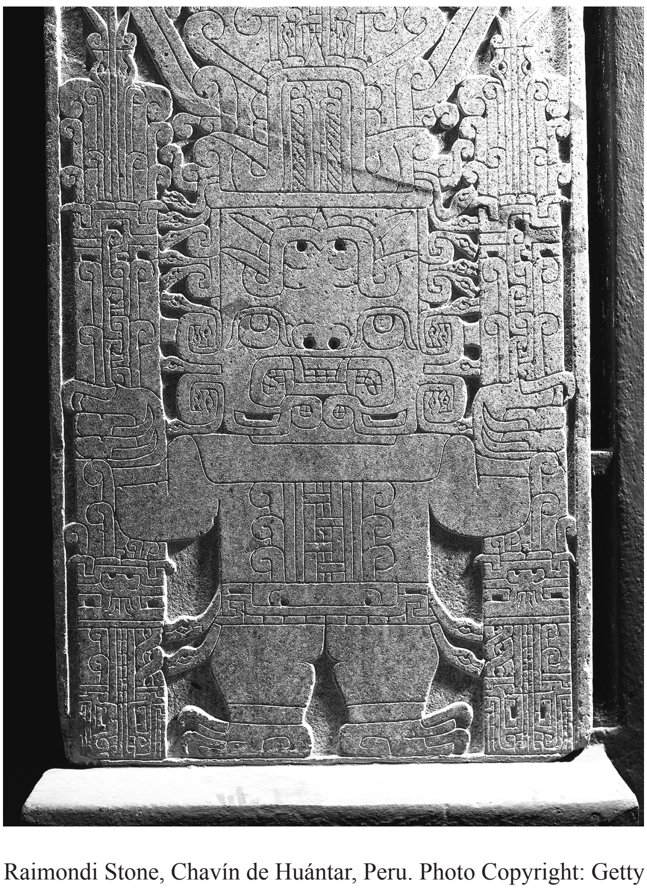


Figure 5.5 Raimondi Stone, Chavín de Huántar, Peru. Photo Copyright: Getty Images

in detail when the viewer is relatively close to the temple buildings. The transfixed spectator becomes the spectacle. Yet, the carvings on the temple, also work when viewed at a distance. Such tensions between the near and far are important features of how the temple complex operated.

Oscillations in perspective are argued to be a deliberate feature (Weismantel 2015, 148). From a distance, the larger-than-life heads on the sides and back of the temples seem to escape from the walls. These sculptures grimace with fangs and what appears to be nasal mucus. Those who entered the temple witnessed such imagery close up on a journey within maze-like passageways (still intact at the site). These routes, known as the labyrinth, lead into small chambers or galleries. The evidence suggests that people from different regions of Peru deposited their local pottery and other things in the Ofrendas (or Offerings) Gallery at Chavín de Huántar. Pottery found here came from the Central Coast, the Casma and Jequetepeque valleys and the northern Highlands (Quilter 2014, 144). The Chavín de Huántar complex drew in people from several regions, and their experience of Chavín was carefully stage-managed and orchestrated.

People who entered this inner realm of the temple were met with a sensory overload of carved images, a strange incongruous architecture, gigantic statues, with the twists and turns of the echo-inducing labyrinth. These areas also contained the remains of decorated human bone (Quilter 2014, 144). It is possible that this experience was supplemented by ingesting psychoactive substances. One of the sculptures at Chavín de Huántar depicts a figure carrying a lengthy section of San Pedro cactus (*Echinopsis pachanoi*), whose flesh is rich in mescaline. The nasal mucus depicted on the heads on the exterior of the temple probably reflects the experience of inhaling powdered vilca (*Anadenanthera colubrina*), a powerful hallucinogenic DMT (N,N-Dimethyltryptamine) snuff made from the beans of a tree common to the tropical forests.

The complex at Chavín de Huántar demonstrates the dynamics involved in encounters with the gigantic. Images viewed from afar imbue the spectator with a sense of the diminutive, while those in the interior of the complex create the sublime. These experiences work in tandem; both viewing the immense from a distance and close to multiplies the experience of being overawed. As Weismantel argues: ‘we are accustomed to sitting still watching “moving pictures”; at Chavín, the stationary stones move us’ (2013, 28). The carved stones of Chavín pull the viewer close to the design, and then push them away to bring part or whole into focus (Weismantel 2013, 33). Encounters with the gigantic do not allow a simplified holistic view, instead views of them are always partial, and incomplete. Chavín de Huántar seems to offer the spectator a particularly intense visual experience. The entire site is constructed as a place of transition, disruption and collaboration. Importantly the imagery of Chavín de Huántar sets up a relational intra-action between viewed and viewer. Not only does the human viewer feel dwarfed and overawed by their visual intra-action with the Chavín de Huántar images, but the immense sculptural images of Chavín de Huántar also look upon and regard the miniscule human. Oscillations in perspective are

key to how the imagery at Chavín de Huántar was experienced and understood (Weismantel 2015).

Scale and seeing: visualisation in early Egypt

At Chavín de Huántar, the architecture and imagery physically overawed and impressed the viewer. We turn now to similar cases in early Egypt, which highlight how particular elements project scales of power. The recent exhibition at the British Museum titled *Sunken cities: Egypt's lost worlds* (2016) was a wonderful example of such affects. Upon entering the exhibition, we were immediately dominated by two colossal red granite statues, around 5m high, dating to the Early Ptolemaic period (c.275 BC). The sculptures are thought to suggest a king and queen, stood erect, moving their left legs forward, with their backs supported by inscribed pillars. Interestingly, both the statues were periodically altered and recarved over time (Masson-Berghoff and Goddio 2016, 98). By looking at linguistic material, Rune Nyord notes that in early Egypt: IMPORTANT IS BIG (2013, 153). For instance, from the adjective root *wr* (great) is derived a noun meaning noble. Conversely, the adjective *nḏ̌s* (small) is the root of the noun citizen (Nyord 2013, 154). It is by considering certain things, such as painted or incised images, that the implications of scale become really apparent.

The art of early Egypt is composite. Things juxtapose to present a whole from parts. Be that multiple perspectives at the same time, or animal, human, gods. Classic combinations in a single image can include:

- A head depicted in profile
- Shoulders in full view
- The waist in profile
- Breast or nipple in profile
- Necklaces or garments that would cover the chest area in full view
- Navels in full view.

Mixtures of elements with oscillations of perspective suggest that such imagery is not about fixed representation. Although themes are present in early Egyptian art, Nyord (2013) proposes that people were not following explicit procedural rules; rather, the images are the result of ongoing intra-actions. We might see them as the result of ceaseless creative connections (to borrow from Deleuze and Guattari 2004 [1987], 7). An example of this is seen in a painted frieze titled *Hierotaxis*, in the Tomb of Mer-ib, Giza (Figure 5.6). Here, one figure (a male human, probably the tomb owner) dominates the scene, both in scale and position. It is significantly larger than the other figures, and is located off centre to the right – compositionally adhering to the Rule of Thirds. The gigantic figure spans several registers (stratigraphic layers) of diminutive figures. Scale here is not the result of depth of field – it is about emphasis. As Nyord (2013, 155) notes, the more

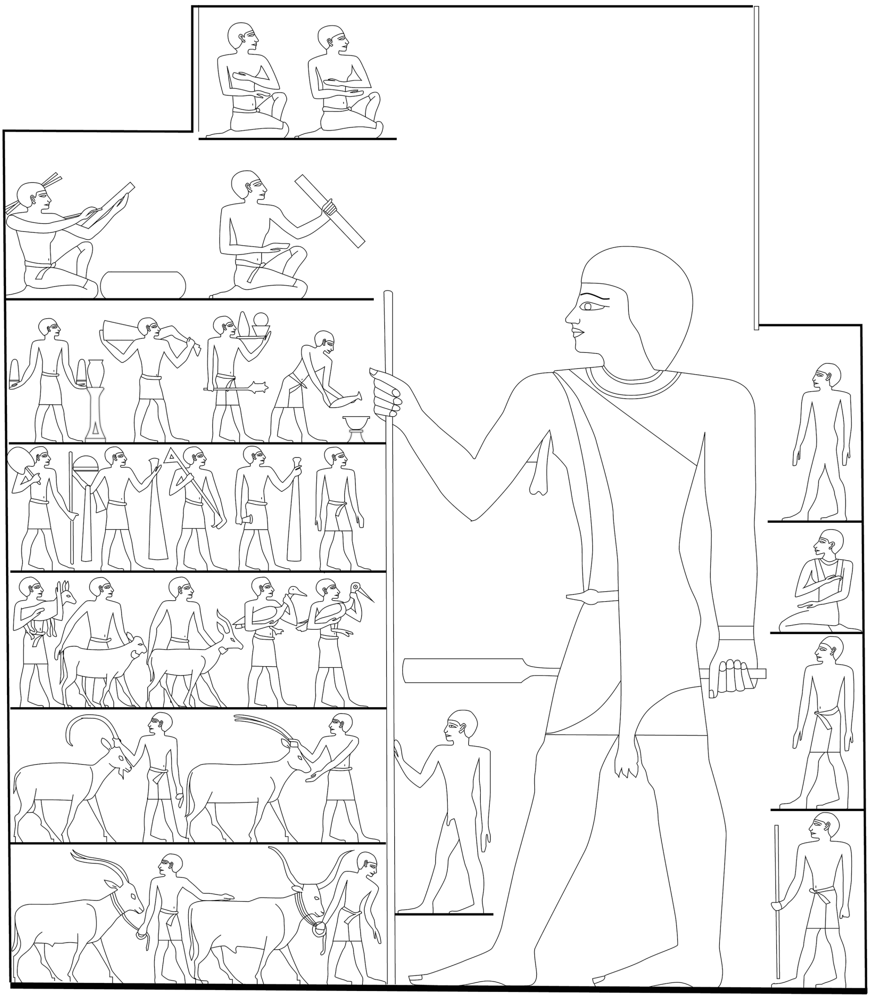


Figure 5.6 Hierotaxis, in the Tomb of Mer-ib, Giza, Egypt. Image Copyright: Rune Nyord

important things in our lives often seem to loom larger. The figure of the tomb owner is literally the (slightly off) centre of attention.

Early Egyptian art is associated with bodies, spells, grave goods, tombs and temples. Key to documented mortuary beliefs is the notion of *im3h*, which lies in the root of *m3h* – meaning bundle (Nyord 2014, 39). The elements of mortuary rites were therefore considered as bundles, or assemblages, rather than singular entities (see also Chapter 12). Nyord (2014) explores Middle Kingdom (c.2040–1782 BC) coffins to illuminate how things were brought together. Traditionally,

coffins and their imagery are seen as signs to be deciphered. As Nyord (2013, 152) notes, this is probably not the best place to start, especially as the early Egyptians probably had little concern for Western semiotics. Instead, we should consider the materials as materials; in doing so, interesting possibilities arise. The rectangular-shaped wooden coffins are decorated with internal and external friezes. The imagery mostly represents things that form the actual grave good assemblages. The images of the goods are presented in sets that relate to other sets in the tomb, and the body of the deceased. The motifs are generally of the same scale; but exceptions occur where Eyes or False Doors are presented as being bigger. We will discuss the eyes first and then the false doors.

Seeing, and being seen, are fundamental to early Egyptian ideas of the dead (Nyord 2013). The gaze is reciprocal rather than panoptic (see Chapter 6); visibility works via relational interplay between seeing and being seen (Nyord 2014, 32). The depiction of eyes on the coffin are not representational. They 'do not describe a pre-existing state of affairs, but rather serve to bring about the state of affairs described' (Nyord 2014, 32). Eyes and the gaze they enact do not merely communicate the presence of the deceased (buried in the coffin) but rather are meant to effect it. Connected with the eyes, D1 hieroglyphs (representing a human head) are often found positioned near where the head of the body would be in the coffin. Nyord suggests the D1 hieroglyphs act in a similar manner to the painted eyes. Interestingly, the eyes and D1 hieroglyphs are always presented at a larger scale than the other images. Nyord compares the depiction of eyes on coffins with those on stelae. In the case of stelae, it is argued that the pair of eyes depicted signify the simple presence of the deceased as an object for mortuary rituals by 'positing a gaze which can be met by the audience of the stelae' (Nyord 2014, 32).

Just as intriguing are the depictions of False Doors. The false doors on the Middle Kingdom coffins probably relate to the Old Kingdom (c.2649–2150 BC) mastaba tombs, with their immense false doors, which formed the focus of offerings to the deceased (Wengrow 2006, 218–258). The door imitates the key elements of a house doorway, but delivers no real entrance to an interior space; it is sometimes accompanied by an image of the deceased person below an offering table (O'Neill 2015). In contrast, the false doors on the Middle Kingdom coffins are not related to the body (like the eyes), they are linked to the structure of the coffin and the tomb; they are architectural and they are presented larger than surrounding images. Again, important is big. The false doors on the coffins are neither open nor shut, they cannot be physically opened or closed; how does this feature produce affects? Nyord (2014, 39) suggests the doors perform in a similar manner to the eyes: their role is to stimulate action, to act as openings for the *ba*, or soul. The intended direction is that of the *ba* desiring to enter the coffin to see the body, rather than to leave it.

One possibility for the rituals associated with Middle Kingdom coffins is that they were concerned to bring into being the role of Osiris and Nut. The deceased becomes Osiris by entering into the myriad of constellations posited by the coffin (Nyord 2014, 40). In documented Middle Kingdom beliefs, the god Osiris was not

a singular element, but rather a conglomeration of things. The mummified body begins the journey of becoming Osiris-like, an *aspect* of Osiris (Nyord 2014, 41), by relations and enactments, with a host of other things. Coffins, imagery, scale and colour, decorated eyes, D1 hieroglyphs, spell texts, false doors, and the mummified body are affective when combined; they perform intra-active events and become affective constellations.

Conclusion

In the case of Chavín de Huántar, we saw that gigantic architectural elements, including the decorated stone monoliths, were intended to convey a sense of being overawed and disoriented; a perception that may have been magnified by hallucinogenic substances. Overall, Chavín de Huántar offered an intensity of visual experience; focusing experience through augmented forms. This was possible because of the relational intra-action between viewer and viewed.

In our Egyptian case study, the architectural elements of the tomb were not so much meant to overawe, but were components in a field of relational differences in which scale operated as a means of emphasis and enactment. Reciprocal and relational intra-action was also a feature of early Egyptian iconography in which the depiction of eyes involved an interplay between seeing and being seen. A relational intra-action also occurred between the deceased, the coffin and its accoutrements, and the Egyptian gods.

In many ways, gigantic architectural forms appear to offer an intensity of experience, an oscillation of perspective from the immense to the diminutive. Does this contrast with what we have seen in encounters with miniature artefacts? With smaller things, time can feel compressed, but the ability of miniatures to create awe is no less significant.

In our discussion of miniature artefacts – particularly the La Candelaria pottery of Argentina and the gold foil figures of Scandinavia – we saw that scale need not be fixed. Distillation can produce powerful affects; for instance, the more you reduce a soup stock, the stronger it becomes. The scale of things need only relate to a moment in the flux and flow of matter (Deleuze 2015 [1990], 1–3). Such undulations in the shifts of scale between things (human and otherwise) were also evident in our discussion of the sculpture at Chavín de Huántar. Here, encounters with sculpture produced alterations in scale and sensory experience.

The scale of things is affective, and encounters with things of differing scales produces different impressions and perspectives: feelings of mastery, or of being diminished and overawed, of either seeing or of being seen. If differences in scale are regarded as merely an instance in the flux and flow of matter, then these perspectival shifts can be fleeting. They might also be regarded as performative: they effect change and bring new experiences into being. Oscillations in scale produce a sense of change.

6

COGNITION, PERCEPTION, AFFECT

Colour and light

Andrew Cochrane and Andrew Meirion Jones

One of the contentions of this book is that images and texts are different kinds of things; in Chapters 1 and 2 we questioned anthropological and art historical efforts to discuss artworks in textual terms. We will develop this point in relation to text and meaning in Chapter 9; here we focus mainly on visual perception, and particularly the perception of colour and light.

Images are not simply a medium of information; they also offer a sensual immediacy that cannot be rivalled by print media; this is the very element that makes imagery of all kinds distinct from texts. There is an undeniable initial impact on seeing images that a written text cannot replicate, for example first seeing the Sistine chapel or watching the first person walk on the moon. There is an exhilarating edge in viewing these images that separates the remarkable from the humdrum. At the heart of all visual events is an intense moment which can involve sublime feelings of 'admiration, awe, terror, and desire' (Freedberg 1989, 433). It is this sensational dimension to imagery that led visual studies scholar W.J.T. Mitchell (1994) to argue that any interpretation of modern Western culture needs to consider the 'world-as-a-picture' rather than the 'world-as-a-text'. Most of the periods we discuss in this book did not use texts. For this reason, we feel that we are on safe ground in proposing that for most of prehistory, the notion of the 'world-as-picture' prevails. Of course, for later historical societies we are likely to observe an interplay between the 'world-as-picture' and the 'world-as-text', as we shall see with one of the case studies discussed later in this chapter.

We argue then that for many societies in prehistoric and historic periods, the world was viewed rather than read. If this is the case, there are two main questions that we must address:

1) How do people view things?
2) How do things engage the viewer?

In the mind's eye

The philosopher Michel Foucault (1977) has had an enormous influence on accounts of viewing and observation. Foucault was interested in the role of

surveillance in the emergence of modern societies, and the development of technologies of observation in places such as prisons, hospitals and workhouses. He draws on the work of the eighteenth-century utilitarian thinker Jeremy Bentham who developed plans for the panopticon: a form of prison architecture that allowed maximum surveillance from a central fixed location. For Foucault (1977) modern modes of viewing were akin to a 'panoptic gaze': a surveillance gaze based on restraint and distance. Here the thing viewed is something to look at. Observation in this model is fixed and one-way; power lies with the viewer who controls a fixed or static visual engagement and scrutiny. Some scholars have regarded this way of looking as akin to a 'tourist gaze' (Carrier 2003, 5; see also Urry 1990). In this model, the eye is regarded as the centre of the visual world, being the sole mediator and controller over appearances and space. Sight is deemed to isolate the viewer, situating the observer outside what they view, at a distance in a one-way direction (Ong 1982, 72).

Michel Foucault is commenting on a mode of viewing that came to dominate the modern world. It is a way of seeing that has a long philosophical ancestry. Martin Jay (1994) begins his lengthy survey of vision in philosophy with Plato. In the *Republic*, Plato argues that we see through the eyes, not with them, and has a general distrust of the fallibility of sight. Jay argues that Plato's well-known myth of the cave, 'in which the fire is substituted for the sun as a source of light too blinding to be faced directly, suggests his suspicion of the illusion of sense perception' (1994, 27). We see through the eyes not with them. This proposition is almost perfectly echoed in the work of seventeenth-century philosopher René Descartes, whose work has perhaps had the greatest influence on modern ideas of sight and vision. Descartes was interested in both the anatomy of the eye (he dissected a cow's eyeball to work out the details of its anatomy) and the behaviour of light (we discuss the subject of light later in this chapter). In the third discourse of *La Dioptrique*, Descartes moved beyond the anatomy of the eye to consider the link between vision and human consciousness, making the well-known claim that 'it is the mind which senses, not the body' (Jay 1994, 75). This proposition immediately sets up a distinction between the viewer and the world, a distinction that remains with us today. As we shall see, these concepts lie at the heart of contemporary approaches to neuropsychology, which we review now.

How we think we see

The debate within contemporary Western philosophy, cognitive science and neuropsychology on how people see deserves a book in its own right. Here, we distil themes that assist in delineating that the eyes of past people were not passive recorders of a pre-existing world, but rather played active roles in every aspect of their visual experience. Conventionally, visual perception or conscious vision is thought to occur in the brain, with the brain making contact with the external environment through the sense organs (Coren et al. 1999, 2). Neuropsychologists argue that we do not 'see' with our eyes but rather with our brain, in the primary

visual cortex (Ramachandran and Hirstein 1999; 16; Zeki 1999, 15; Ramachandran 2003, 50). Here we observe the clear legacy of Plato and Descartes; the eye and the brain are distinct mechanisms.

In simple terms, our visual experiences are thought to represent how the brain physiologically processes and modifies information through the medium of light entering the eye. How these processes ultimately result in the conscious perception of an integrated image is debated by psychologists and neurologists (cf. Gibson 1978; 1986; Zeki 1993; Clark 1997; Huang 2009). Current thought is that the phenomenon or experience that we term consciousness is diffuse, being spread over the whole of the cerebral cortex and indivisible from neurophysiological structure (i.e. the central nervous system) (Hubel 1995, 24; Zeki 1999, 67).

There were several contesting theories of how we see the world. The first *extramission* theory argues that vision involves an outward projection of rays through the eyes. This sending out view of vision depicts sight as an active process, in which the viewer looks at things and can decide where to direct their attention. It was argued that the eyes emitted light or fire, and that nocturnal animals supported this notion as they could see at night (Hoffman 2000, 66). The second main theory is that of *intromission*, the idea of the sending in of images of light through the eyes. It has been questioned, however, how one can pass objects the size of a mountain, on a cinema screen, through the tiny pupil of the eye (Hoffman 2000, 65). The orthodox scientific theory of vision was postulated by Johannes Kepler in 1604: a theory of refraction by spherical lenses. Kepler demonstrated that the eye has one clear function: to focus an image onto its retina, operating like the image in a camera obscura (Hoffman 2000, 66). In this model, the retina is not a passive recipient of images, instead it actively transforms them, utilising millions of neurons (cells) working in parallel. These data are received via fibres from the retina to the cerebral cortex, V1 (Zeki 1999, 18). Previous neurological models described seeing as a passive process, in opposition to understanding which was thought of as an active process (Zeki 1999, 20). Current neurological developments into the neuropsychology of vision have elucidated the roles that other areas of the brain perform (such as V2, V3, V3A, V4 and V5). This proliferation of newly discovered visual areas, which processes different aspects of the visual scene such as form (area V3), colour (area V4) and motion (area V5) have demonstrated how all vision involves active spectatorship (Hoffman 2000; Zeki 2015). Such discoveries have helped form the view that 'vision is an essentially active search for essentials' (Zeki 1999, 21). What the visual brain is doing is seizing from continually changing information the fundamentals, and distilling from these views the essential character of things and situations (Zeki 1999, 21; 2015; see also Cook 2013b).

Sheldrake (2003) has recently proposed an alternative theory that argues that there is both an outward movement of attention and an inward movement of light. The images of the things we see around us are where they seem to be, outside our heads, rather than inside the brain. This outward projection is assumed to occur within mental fields, named perceptual fields (Sheldrake 2003, 206).

The spectator is creatively shaping what they see, whether it is in the V1 cortex or whether it is a projection into the world. As Zeki propounds, 'seeing is perceiving is understanding' (1999, 80). Seeing, perceiving and understanding are simultaneous processes (Gibson 1986; Clark 1997). Vision is immersive: the spectator shapes a view of the world from their experience of environs as they move.

Colour, light, vision, affect

The discussion above of how we think we see perpetuates some fundamental distinctions between body and world. It also sets up problems for our understanding of colour and light. The eyes (or the face; Deleuze and Guattari 2004 [1987], 186) emerge as the junction point between the brain (the 'black hole of subjectivity'; Deleuze and Guattari 2004 [1987], 186) and the world perceived. Tim Ingold (2015, 101–102) highlights that the 'black hole/white wall system' identified by Deleuze and Guattari (2004 [1987], 186) posits a separation between the 'black hole' of consciousness and the 'white wall': the plane of significance onto which rays of light are projected:

> With the white wall/black hole system, white light reflected from the surface of objects in the world converges, in seeing, at the black pupil of the eye; while in drawing, the typically black line, issuing from the mind of the hidden subject, by way of the hand, is inscribed upon the white surface of paper. Colour, in this system, is superficial, even deceptive.
>
> (Ingold 2015, 102)

Colour is deceptive precisely because it is conceived as an embellishment of a world of lines: a world conceived in outline form. In the same way, light rays are also conceived simply as vehicles of perception, devices for seeing. These rather neutral descriptions of light and colour overlook questions of surface, intensity and affect.

The visual artist David Batchelor (2000; 2014) has done much to question our contemporary understanding of colour. He admits to bewilderment at the dizzying debate amongst psychologists about colour perception, and with a mixture of exasperation and relief notes that the distinguished scholar of the psychology of colour C.L. Hardin (1993) argues that colour is an illusion, but not an unfounded illusion. Hardin suggests that the appearance of colour as the property of a thing is illusory, but it is a stable illusion that can be measured and tested (cf. Zeki 1993, 239). Batchelor (2014, 54) prefers to simply point out that most colour experiences are dependent on light; on light falling on opaque surfaces or light shining through transparent or semi-transparent materials. What makes most sense – Batchelor argues – is to think about colour experiences as events; events that are enabled by the incidence of light. We can think of luminous colour experiences as a particularly vivid kind of colour event (Batchelor 2014, 54). This approach to colour is echoed by the anthropologist Michael Taussig, who draws on the

philosopher Walter Benjamin to argue that 'colour is a winged creature that flits from one form to the next' (2009, 73; see also Zeki 1993). Colour is part of the world of shimmering, changing moods, not the world of forms.

Colours are shifting and changing, and the experience of colour must take account of these mercurial fluctuations. It is not helpful to think about vision in a fixed or static sense, instead we must embrace the point that colour experience is the result of a series of convergences of light and materials, and that these affects and intensities will change over time. Colour is not ahistorical; it has moment and temporality. Archaeologists have tended to treat colour in a static fashion, preferring to measure soil colours with standardised Munsell colour charts, or define the meaning of coloured artefacts (see critique of static/semiotic views of colour in Jones and MacGregor 2002; Jones 2012, 72–99). On the contrary, it is possible to incorporate a sense of the affective and changeable character of colour in accounts of past uses of coloured materials. As such, we will now look at two case studies relating to ivory. Following this, we will examine two case studies relating to coloured materials.

We will survey examples of ivory working in two distinct periods of time, beginning with the Upper Palaeolithic of Central Europe, then look at ivory figurines of a religious character from the High Medieval period of Western Europe. In each case, we investigate how the properties of ivory are drawn on in these different historical contexts, and also how the shifting character of colour and light impart ivory with these properties. Following this, we will broaden our discussion to examine colour use in the rock art of California.

Tickling the ivories: beads from the Upper Palaeolithic

Basket-shaped beads of mammoth ivory are a characteristic material form of the Aurignacian period of the Upper Palaeolithic (around 45,000–30,000 BC). This was a time when collaborations with stone and wood were augmented by other materials, such as carved antler, bone, mammoth ivory, pierced shells and a range of coloured substances like amber and soapstone. Alongside the adoption of these different materials, we also observe new technologies and new categories of material culture, including figurines (that look like humans and animals, or a combination of the two), and beads and pendants. Beads are often found in large numbers in the earliest Upper Palaeolithic assemblages suggesting that identity and differentiation were significant.

This changing relationship to things has often been associated with the so-called symbolic revolution, an explosion of creativity associated with the movement of Anatomically Modern Humans into Europe, and the decline of Neanderthal populations (Pfeiffer 1982; Mellars 1989; Mithen 1998). This simplistic way of thinking is unhelpful; the emergence of this rich material is equated with evolutionary developments in the human mind, the 'black hole of subjectivity' to use Deleuze and Guattari's (2004 [1987], 186) memorable phrase. A black hole into which many cognitive-archaeological explanations are pitched, never to return or be

contradicted. There are other ways of thinking about this material, however, that pay closer attention to how humans are engaging with matter.

Randall White (1992, 1997) makes a key observation when he notes that many of these materials share a common property: lustre. Lustre is an effect of the mother-of-pearl sheen of shells, sometimes used to manufacture beads. This property is shared by dental enamel, making teeth an almost equally significant material used in bead manufacture. This is also the case for many of the stones used in bead manufacture –limestone, schist, chlorite, talc, steatite, haematite, amber, jet and pyrite – that have lustrous qualities. Importantly, mammoth ivory could also achieve this lustrous effect, and when polished to reveal its vibrant properties, also feels warm to the touch. White's (1995, 1997) careful analysis of the processes of bead manufacture shows that considerable care was taken to produce this effect in ivory, and beads were polished with haematite to achieve this. Significantly this analysis of bead manufacture shows how techniques of working created further similarities between materials. White (2007) argues that basket-shaped beads of mammoth ivory are skeuomorphs of seashells (skeuomorphs share similar forms but are made of different materials). Beads were elaborately worked down, and with some technical difficulty, to create the distinctive 'basket-shape'. This was a very formalised procedure. We might argue that this is because people wished to achieve standardisation. Repetition of form is after all a creative act, and no less so, for not discovering new shapes.

Another explanation might be that treating materials with similar properties in the same way technologically worked to create equivalence between the different materials used in bead manufacture (Conneller 2013, 129; Cook 2013b, 198). Chantal Conneller (2013) develops White's (1997; 2007) observation by taking what she describes as a perspectival approach (after the work of Brazilian anthropologist Eduardo Viveiros de Castro 1998). Might the beads have been thought of as gleaming or shining because of a shared inner property (a soul or essence)? This contrasts with their external form, as beads were made to take on the appearance of shells or teeth. Might these materials have been thought to have shared this external appearance because of their common properties of shininess and lustre? Working materials – such as mammoth ivory – for bead manufacture was a process of revealing the inner essence or shared properties of materials. The lustrous properties of mammoth ivory were revealed through exploratory processes of working and manufacture, and this intrinsically experimental and improvisatory approach to materials took place with the emergence of Anatomically Modern Humans in Europe.

Meditative materials: Parisian ivories of the Virgin and Child from c. AD 1300

Miniature devotional figurines carved in ivory are a feature of the Gothic period (from the twelfth to sixteenth centuries) in Europe, particularly in France. In the thirteenth and fourteenth centuries, elephant ivory became increasingly available,

and there was a taste for fashioning small-scale statuettes depicting the Virgin and Child in ivory. Large numbers of these artefacts were made, and many hundreds survive. Paris was the most important, but not the only, centre of production of these things. Some scholars have comparatively studied these statuettes, and all depict the seated Virgin with the Child standing in her lap and engaged in a variety of gestures emphasising touch. The Paris ivories include several celebrated works, including the Rattier Virgin, the example from the treasury of San Francesco d'Assissi, the large Virgin and Childs from the Collégiale Villeneuve-les-Avignon, from the Museu Nacional d'Art de Catalunya, Barcelona and the comparatively large Virgo lactans in Yale University Art Gallery, New Haven, USA.

The Rattier Virgin, dating to around AD 1270 and made in Paris, is presently in the collections of the Victoria and Albert Museum, London (Figure 6.1). It is a remarkable piece that stands out for its delicacy and refinement. The movements of the Christ child seem to be based on observation of the behaviour of real toddlers. Despite its realism, the piece bears a heavy theological burden. There is a distinction between the naturalistic behaviour and sweet expression of the child, and his eventual fate on the cross. The bird that he delicately holds in his hand is probably a goldfinch and associated with death, while Mary's tender caress of his pudgy feet calls to mind the nails that will pierce him to the cross. This is a conventional, iconographic analysis of the statuette, full of biblical allusion. Yet, these statuettes were not just appreciated as representations, they belonged to a set of practices and performances that wove tactile and visual perception into devotional experience.

Alexa Sand (2014, 3) argues that ivory was a particularly significant material for these devotional figures for several reasons. Ivory has a sensuous quality; when smoothed it can be akin to velvet or satin, and characterised by subtle variations in its surface. When handled, it is rapidly responsive to the warmth of the hand. Medieval audiences were also aware of another tactile property of ivory – its weight, which would have conveyed a sense of luxury and costliness. Cost is also conveyed by the careful and restrained use of pigments such as gilding, ultramarine blue, and red, all of which were valuable colouring agents. In terms of the overlaid meaning of ivory, it was thought of as a material purified of its bestial origins by human artistic workmanship, and by the sacred purpose and iconography to which it was devoted. Medieval liturgical sources point out the parallels between ivory's whiteness, translucence, and the Virgin's purity.

These attributes suggest that these devotional images were not so much focuses of biblical meaning, but were perceived in a tactile sense. There is circumstantial evidence that these statuettes were repeatedly touched. In many cases this is evident from the poor condition of an object, discoloured from repeated contact with the oils, sweat and dirt of the human hand. Other statuettes – such as the Rattier Virgin – are well preserved and must have been cautiously handled. Sand (2014, 5) argues that the tactile nature of these artefacts has less to do with being handled 'than with being haptic – that is oriented toward the sense of touch in their materiality and their conception as representational objects'. She suggests: 'Their size,



Figure 6.1 A Paris Ivory – the Rattier Virgin. Photo Copyright: Victoria and Albert Museum

their material, and their devotional setting engender a close-in viewing experience in which "the eye has a haptic, non-optical function" and the mind "touches" the object' (Sand 2014, 5).

Sand (2014, 12–14) also draws attention to the practice of kissing devotional images. Religious images were frequently handled or manipulated in ways that suggest they were living members of a community. Kissing, fondling and

sometimes removing pieces of an image were accepted practices that acknowledged the efficacy of these sacred images. The iconography of the Magi features the reverential touching or kissing of the infant Christ's feet, and borrowing from the visual repertoire of Crusader and Orthodox icons from Cyprus, central Italian painters of the thirteenth century adopted the motif of the Virgin delicately fondling the child's forefoot (Sand 2014, 13–14).

This emphasis on touch is significant. It capitalised on the material character of these ivory figurines 'to engage their viewers in a perceptual dance that brings together the senses, particularly those of touch and vision, and hinges on their continuity and synergy, within the devotional mindset' (Sand 2014, 23). The intersection of the visual and the haptic is underlined by Victor Buchli's (2016, 58) distinction between 'seeing at' and 'seeing through' in the Byzantine and Medieval world. The idea of 'seeing through' denotes an interpenetrative form of looking, an active engagement that 'shows the way through' materials (Buchli 2016, 58). Equally, the notion of a perceptual dance perfectly captures the changeable and shifting character of perception.

We have focused on ivory artefacts as a means of discussing how materials behave in dynamic light ranges. We now shift from monochrome ivory to multicoloured images to develop these insights.

Mirror of the sun: rock art imagery and pigments in south-central California

Characterised by fantastical imagery, the rock art of the Native American Chumash groups includes diverse design elements such as insects, reptiles, birds, bears, humans and often transmorphic beings (beings composed of a number of elements found in other species). Other images, painted in vibrant reds, look like mandalas or sun disks with radiating spokes. There are also abstract compositions and wide palettes of colour – showing careful pigment processing and skilful application (Robinson 2013, 61–2).

David Robinson (2013, 63) argues that to understand this imagery we need to appreciate the active role of rock art in Chumash notions of power and ideology. Two related concepts are key here: first, the transmorphism of being; the elision or combination of certain characteristics of plants, animals, humans and other sentient beings. Second, the notion of correspondence: a principle that 'affords connections between sentient and less than sentient materials and substances' (Robinson 2013, 63).

Robinson (2004; 2013) discusses two types of Chumash rock art imagery: the well-defined polychrome images and the less well-defined smears of paint. At Beehive Shelter in the Vandenberg mountain range on the Pacific coast of California, 'faint black geometric lines and amorphous splodges of red pigment can be seen smeared on the surface of the shelter wall' (Robinson 2004, 91). These images rarely capture the attention of archaeologists, slipping through rock art analyses almost unnoticed (Robinson 2004, 93). To comprehend them we need to

appreciate the importance of the physicality of action in many aspects of Native American practice. Viewed from this perspective the smudges of pigment emerge as possible evidence of expressive enactments at the site. If the act was public, the expressive actions involved visual communication between the painter and watcher. If the act was private, the importance of this rock art resides in the tactile encounter between the skin and rock surface through the medium of pigment and binding substance. Yet what of the significance of the coloured pigments? Robinson (2004, 96–97) argues that certain substances, often substances with reflective or unusual properties like pigment, embodied the presence of *'atiswin*, or power. *'atiswin* was also present in some rock shelters, such as Rattlesnake shelter, where crystalline bands in the rock cause strong sunlight to reflect from the rock surface: the mirror of the sun.

At Piedra Blanca, a monochrome red bird figure has a celestial pinwheel replacing its head and beak (Figure 6.2). Chumash images alluded to a collective range of parts, particularly human and animal, but also vegetable and probably

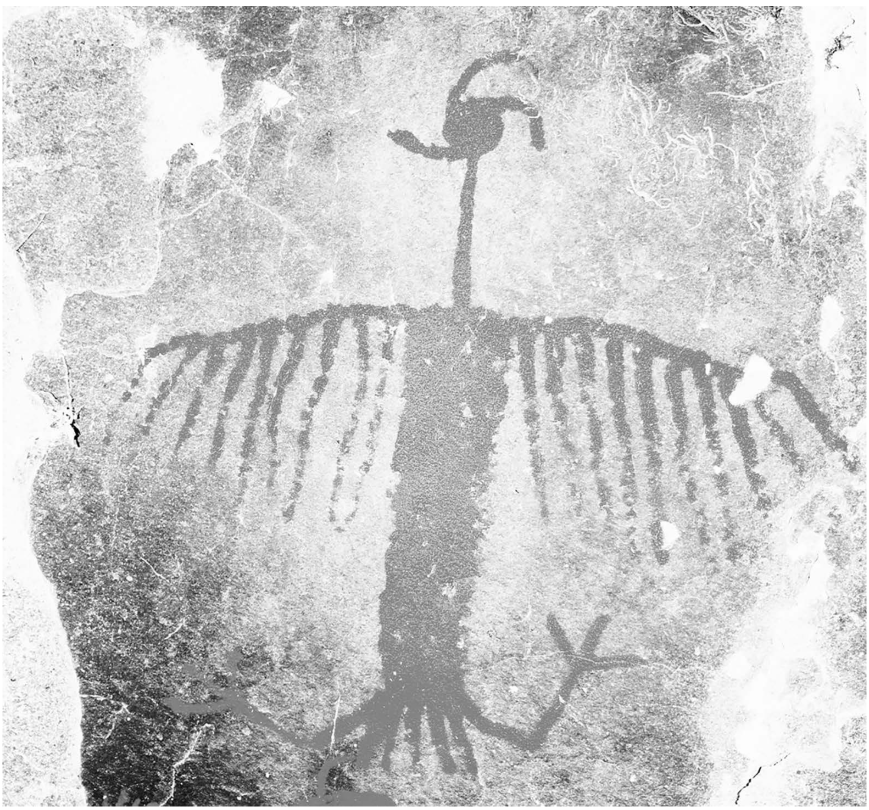


Figure 6.2 Monochrome red Chumash pictograph, Piedra Blanca, California. Photo Copyright: David Robinson

personified astronomical bodies. A pinwheel element may be doubly significant, relating both to the power associated with a celestial body and the psychoactive *Datura stramonium* (a plant famous for inducing both hallucinations and death if too much is consumed). Robinson (2013, 72–73) reasons that transmorphic beings, such as the red bird at Piedra Blanca, are images redolent with correspondence. Chumash images achieve their affective power through combinations that draw upon complex correspondences based on materials, place and imagery. The colour of the pigments used in making this imagery is just one element of this collaboration.

Conclusion

This chapter has been concerned with images, how people see images, and how images affect. We began by asking if images were different to texts. We argued that images were impactful: they have an impact on the viewer. By discussing colour and light, we highlighted the changeable character of this impact. We have discussed three case studies, two relating to ivory from two quite different archaeological and historical contexts, while the third discussed the use of coloured substances in the Chumash rock art of California. In the first of these Palaeolithic case studies, we learnt that mammoth ivory was used for making beads, in part because of its lustre and shininess. The case of the Parisian ivories of the Later Medieval period highlighted similar characteristics of ivory to that of the Palaeolithic – ivory was prized for its lustrous and translucent appearance (when worked), its texture, its warmth. Ivory is a tactile substance, touched with the eyes and the hands.

Ivory highlights the variable experiences associated with coloured substances, albeit in this case a lustrous white substance when one alters it. As it was worked in the Aurignacian period of the Palaeolithic, mammoth ivory changed its appearance and became shiny. One of the authors (AC) had the opportunity to experiment with carving mammoth ivory. He noticed that working ivory with stone tools eventually changes your hands and body; it is time consuming and it can hurt. There is also a distinctive smell and accumulation of ivory-dust particles. In the Late Medieval/Gothic period elephant ivory was worked. This time a variety of qualities of ivory were drawn out of this substance, its lustrous and translucent look, its feel and warmth. In this period ivories were handled and kissed as part of devotional practice, changing their appearance as they were manipulated. Vision was not fixed, it was restless, a 'probing, seeking gaze that searches for a true vision, a genuine, sensible encounter with the holy' (Sand 2014, 23).

Finally, we began this chapter with two apparently simple questions: 'How do people view things?' and 'How do things engage with the viewer?' We can now appreciate that these questions pose a fundamental problem: they assume a distinction between viewer and thing, and do not consider change. Our case studies also highlighted that vision is changeable. We are better thinking of visual experiences as events of greater or lesser intensity (Deleuze 2003; see also Žižek 2014).

This was underlined by the appearance of certain Chumash rock art sites which stimulate an intense visual experience as the rock surfaces reflect the sun's light. This was also noted in our discussion of the Parisian ivories, as experience with them changed as a process of intra-action – they became warm, different pieces of the sculptures revealed themselves as they were handled, or were manipulated visually. In the most extreme cases, bits were removed and treasured for later devotional looking. The basket-shaped beads from the Aurignacian incorporated and projected shifting movement. Alternating qualities revealed themselves as the beads were worked with, and when worn or displayed the beads would have shifted in appearance as they caught or escaped the light. The character of visual experience is best summed up by Sand's superb phrase: a perceptual dance. Human viewpoints change, while at the same time materials change their appearance and colour as light interacts with them. It is vital that our understanding of human experience of vision captures this sense of changeability.

7

ASSEMBLY AND DISASSEMBLY

Andrew Cochrane

> *Since the tubes of paint used by the artist are manufactured and ready-made products we must conclude that all the paintings in the world are 'readymades aided' and also works of assemblage.*
>
> Marcel Duchamp, 1961

This quote from the artist Marcel Duchamp perfectly captures the subjects discussed in this chapter: the twin practices of assembly and disassembly. Composition and juxtaposition of materials in the making of things are an activity of critical importance as they fabricate and cement significance by bringing things into relation. Here, we examine the important acts of deliberate discard, breakage, and the destructive slighting of things (see Keuchler 2002), and how this relates to themes of memory, renewal, repetition and iconoclasm (Cochrane 2009; Jones 2007; 2012; Helms 2012). Assembly and disassembly must be viewed as critically important twin practices, associated with the coming together and dissolution of matter, with movement and flow.

The archaeology of infamy

When Martin Luther nailed his theses to the door, he set the stage for the West's obsession with representation and meaning; this is often termed the Reformation. The reformation of the image was a contradiction in that the image did not progress, rather it entered into oblivion. From AD 1500 to 1580 in northern Europe, the history of the image becomes a story of image extermination (Koerner 2008, 27). Such Lutheran annihilations have had a long legacy, for it is from the Reformation that images achieve clarity through symbolism, representation and interpretation. We carry those burdens of how to approach images today (Cochrane 2016). In investigating the motivations for why some people feel the need to destroy images, Latour (2002, 21–30) devised a rough categorisation comprising five types of impulse to eradicate images: people against all images; people against the freeze-framed image; people against their opponents' images; innocent vandals; and acts of subversion (see also Chapter 5 here).

Image breakers become image makers, especially when they seek to publicise their efforts (Koerner 2002, 164; *contra* Hinde 2007, 327). We can witness examples of this at the British Museum, with Marcus Gheerhaerts's anthropomorphic landscape print, often known as the Allegory of Iconoclasm (c.1560–1570). This image presents Roman Catholic practices that the Protestant Reformers considered idolatrous. Viewing it up close, one can see in detail such actions, and Reformist thoughts about them (a bird on an icon-covered post defecates on the worshipping priest). Yet, when one changes perspective and moves further away, you see the grotesque face of the tonsured monk, deformed and partially blinded by his beliefs (Koerner 2002, 164). This image presents defacement and refacement. In the foreground of the image, bearded pious men smash and burn the things that offend them; iconoclasts seem to relish their roles as scoundrels (Koerner 2002, 170). Latour (2002, 18; see also Mitchell 2005) asks: if artworks are so dangerous, why are there so many? If they are so innocent, why do some fear them?

On 26 February 2001, Mullah Omer, the Taliban leader in Afghanistan, ordered the destruction of the Bāmiyān Buddhas (Figure 7.1) and they were attacked with rockets, tank shells and dynamite in an attempt to erase them. In total it took 20 days of sustained work (Centlivres 2002, 75). After their destruction, Mullah Omer sacrificed 100 cows as an act of atonement for the eleven centuries in which the Buddhas were not erased. By ordering the destruction of the Buddhas, the Taliban had inadvertently suggested that the people who had occupied Afghanistan previously were not proper Muslims (thereby destabilising their own claims to

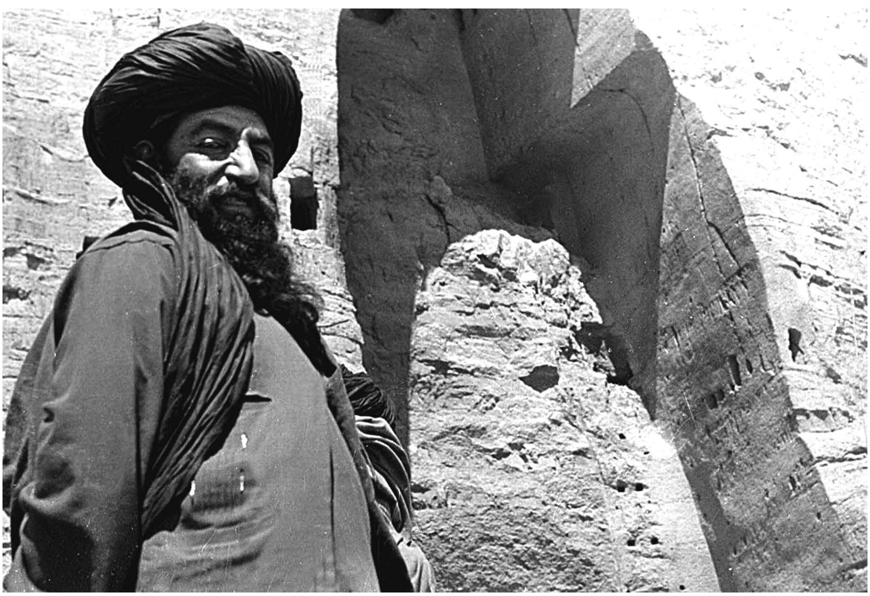


Figure 7.1 The destruction of the Bāmiyān Buddhas, Afghanistan. Photo Copyright: Getty Images

political legitimacy), as they had let them stand unharmed (Clément 2002, 218). The erasure of imagery can often result in unintended consequences. The events of this destruction were recorded by Taliban photographers and Al Jazeera camera operators – although iconoclasts, the Taliban recognised the power of images and how best to use them for political gain (Frodon 2002). The destruction of one cosmological image effectively created new ones.

Legend has it that the faces of the Buddhas were erased either by the last of the 'great' Mongol leaders, Aurangzeb (1618–1707), or the 'Napoleon of Persia' Nāder Shāh Afshār (1698–1747), in the seventeenth century with cannon fire. More recently, it was proposed that the figures never had faces, and that masks were attached to the empty face façades (see Chapter 5 for more on masking). If this is true, then the Buddhas were created unfinished, and the Taliban just attempted to finish off the absence (Centlivres 2002, 77). Process is always in flux, and damage can often involve moves towards completion, if indeed this state is ever achievable.

What is interesting is that an attempt at erasure has now created new spaces and viewpoints (Meskell 2002; Holtorf 2006). We are witnessing at some level the clash of worldviews – yet the Taliban aims are not fully realised, and ironically, Buddhism often sees the ultimate truth being present by emptiness (*Śūnyatā*). As such, the erasure of the Buddhas enhances their power to stimulate and create new engagements. Images are not always representations of beliefs – but they can simulate or dissimulate them (Baudrillard 1994). Often destructions create new ambiguities that can percolate through perspectives. They also can paradoxically preserve things that were not meant to be preserved (Driessen 2013, 15).

More recently, the group known as Daesh in parts of Iraq and Syria, have picked up where the Taliban left off, with their approaches to art and archaeology (Harmanşah 2015). They have not been content to inflict their violence on just archaeology; they recently published on social media their beheading of archaeologist Khaled al-Assar. Daesh has successfully delivered three strategies: the first is deception, which tests the impact of potential destructions. The second is shock, which uses international outrage to project false levels of power. The third is financing the group, which like the Taliban before it, has turned looting into a successful overseas business plan (Smith et al. 2016, 164; see also Harmanşah 2015). Little here is to do with religious outrage; but their actions are still similar to sixteenth-century Reformists in northern Europe.

Assembly and disassembly are closely related in acts of breakage – both create further images. Iconoclasts also demonstrate the power of stereotypes. Such performances are assemblages in that they operate at differing scales, with varied things. Breakage is a physical tactile labour, and it can generate senses of empowerment; ultimately though, it reifies the power of images over people.

Acts of image erasure, however, need not always be moments of aggression or resistance. For instance, Robert Rauschenberg attempted to further explore the work of Willem de Kooning (1904–1997) by completely erasing one of his drawings (Katz 2006). This performance created the image *Erased de Kooning*

Drawing (1953), and according to Rauschenberg was not inspired by negativity, but rather a desire for ongoing process (Katz 2006, 41). In this sense, and depending upon the spectator's belief system or taste, something negative has the capability to produce positive repercussions. The making and breaking of things will be a theme that runs through the rest of this chapter.

Fragmentation: the Rashomon effect

In 1950, Akira Kurosawa released his groundbreaking film, *Rashomon*. The plot involved a murder in which four people describe what happened in fragmented, complimentary and contradictory ways. The histories reported overlap, intersect and create a series of interconnected events. This occurrence is popularly known as the Rashomon effect. Here, we discuss the fragmentation of things and consider some of their juxtaposing affects.

Chapman and Gaydarska (2007; see also Gaydarska et al. 2007) discuss sequences of production (*chaîne opératoire*), structured deposition, fragmentation, personhood, consumption, accumulation and enchainment as a means of stimulating new questions about figurines from the Neolithic of south-east Europe. Chapman and Gaydarska (2007; see also Chapman 2000) argue that many figurines were deliberately broken, and that the fragments that resulted were deployed in exchange networks, by which relations between people and groups were maintained. Through this process, by the division of parts, persons can become enchained or related to each other. Bradley (1982) suggested that the deliberate breakage of things could help cement position in a group; but the effects can be subtler. For Chapman (2000), acts of breaking and deposition were performances which stimulated senses and understandings. As Duchamp, and Picasso after him, rightly noted: every act of creation is firstly an act of destruction.

By looking at late Neolithic Hamangia figurines from the Black Sea coast, Chapman and Gaydarska (2007) demonstrate that figurines were deliberately broken via fine-grained examinations of fragment distribution within and between sites. They examined post-breakage treatment, and discovered fragments that could be refitted (even though they were found in separate assemblages). Similar occurrences are found in Jōmon Japan, at the site group of Shakadō in Yamanashi prefecture (see also discussions in Chapter 5). Here, 1125 figurines were discovered, and only one was complete (Masayuki 2009, 50; Bausch 2010, 100). Of these 1125 fragmented figurines, 30 could be refitted back together. Two pieces were found 230m apart in separate villages. What is interesting about the Shakadō sites is that we have evidence for continual occupation for around 1000 years, and the practice of dogū fragmentation continues through this period (Bausch 2010, 106). Indeed, as most figurines from the Jōmon archipelago are found broken, it is argued that deliberate breakage was the order of the day, after the Initial Jōmon has ceased (Ikawa-Smith 2002; Masayuki 2009). Kobayashi (1977) demonstrated that most dogū are made with intentional fault lines in place. He poetically describes the breaking of them as being like snapping a slab of chocolate.

Chapman and Gaydarska (2007; see also Gaydarska et al. 2007) reconstruct biographical pathways along which figurines proceeded from their whole, original state to the potential roles that they may have played as fragments. They argue that complete figurines were understood in the Neolithic as neither completely male nor female (i.e., they were androgynous). Once the figurines were broken, the fragments became male, female, or gender-neutral. Sometimes the smallest thing can stand for the larger body, as Georges Bataille demonstrated with his photo of a *Big Toe* (1929). If the fragments could be refitted, then the figurines become androgynous again and were often deposited in the ground. The part presents the whole and the whole its parts; this is also known as fractality (Chapman 2000, 28; Fowler 2008, 47; Haskell 2015, 77). In this way, Chapman and Gaydarska (2007) suggest that the personhood and identity of figurines are fluid in the same ways as human identities are fluid.

Chapman (2000) argues for the significance and importance of fragmentation. Things are deliberately fragmented, he argues, as a means of stimulating new relationships. Following Chapman (2000) and Gamble (2007), we suggest that fragmentation is essential to archaeology. If we are to reconsider how sites and things are performed, we need to think of archaeological data, not as representations of wider overarching causes, but as so many fragments situated in webs of practice. Knowledge is built from the ground up; it is assembled from locally available components.

In Chapman's (2000) terms, the breaking of artefacts creates enchained relationships, as what once was whole is now shared between two or more. Here, emergent properties are explained by the intra-actions of the component parts (see also DeLanda 2011). Fragments can also be accumulated and their physical collection in an assemblage means that isolated fragments can be juxtaposed and related together; thus, creating opportunities for unlimited paradoxes (Marcoci 2007, 15). This applies to complete artefacts; wholes can only ever be an assembly of parts. The physical creation of artefacts is an act of contrasting differing influences; artefacts embody things that came before. Similarly, the physical collection of artefacts together in an assemblage means that distinct groups of things become a set in which differing influences are juxtaposed. We can also approach sites and monuments in the same way. The construction of sites may involve the juxtaposition of differing constructional materials. This may be a continuous process, as sites may encapsulate long-term trajectories in which an array of materials may be assembled, juxtaposing novel categories.

Facing things in motion

Deep in the swampy rainforests of Olmec Mexico, where mornings were broken by the roar of howler monkeys, groups of people carved colossal heads and monuments from basalt rock and green serpentine, created mosaics of jaguars, and deposited fine sculptures in the ground (Drucker and Heizer 1956, 387; Stuart 1993, 94). The most famous example of such deposits comprised an assemblage

of carved stone works found buried in a pit by a platform in La Venta, Tabasco, in the southern Gulf Coast of Mexico (Figure 7.2). La Venta was placed on high dry ground created by a salt dome (Stuart 1993, 96); sulphur deposits lie beneath the swamp lowlands, and yellowing mists rise on atmospheric daybreaks. The carved figures were designated as Late Neolithic (New World) and named: Offering 4 (Drucker and Heizer 1956; Gillespie 2015). La Venta played a key role in Middle Formative Mesoamerica (c.900–400 BC), witnessing an increase in complexity that eventually resulted in the formation of states, with new emphasis on particular materials such as jadeite and serpentine. These substances played pivotal roles with the maintenance of hierarchies and legitimacies (Gillespie 2015, 46). Offering 4 (Figure 7.2) was discovered in a walled precinct named Complex A at La Venta. Within Complex A were arrangements of bodily ornaments in pits, anthropomorphic figurines, goods in possible graves, and caches of jadeite and serpentine in worked and unworked conditions. It is possible that these materials operated in similar ways to jadeite, *Spondylus* shells, copper and gold, in the Neolithic and Chalcolithic of Europe (e.g. Renfrew 1986; Chapman 2014; Hunter and Woodward 2014; Pétrequin and Pétrequin 2016). The significance of these figurines was augmented by the difficulties involved in making or obtaining the materials. In contrast to western Europe in the Neolithic (Sheridan and Pétrequin



Figure 7.2 Offering 4, La Venta, Mexico. Photo Copyright: Getty Images

2014), where jadeite was curated for hundreds of years and carried over great distances (e.g. between France, Italy and Bulgaria), Middle Formative Mesoamerica witnessed intentional breakage from the beginning. This is despite jadeite's hardness, rarity and the skill required to work with it (Gillespie 2015, 46). The jadeite and serpentine things in Offering 4 were deliberately broken, placed in a pit, and covered in several layers of different coloured sand; the pit was rendered invisible by later clay floor surfaces.

Offering 4 was discovered in 1955 within an elliptical pit, and comprised 16 stone sculptures (mostly serpentine) in an upright position. They are all about the same height (c.160–200mm) and face each other in a semi-circle. They are often seen as male and without clothing (Gillespie 2015, 47); as they are not human, it is probably unhelpful to assign human gender. Besides, figurines like to deceive (Bailey 1996, 292). The heads seem elongated and contain traces of red cinnabar (Stuart 1993, 107). Six jadeite sub-rectilinear celts or axe-blades (c.230–270mm high) were discovered with the 16 figurines; these formed a boundary between the figurines and the side of the pit facing the platform in Complex A (see Figure 7.2). The celts are sometimes seen as miniature carved stelae or references to the basalt columns of the complex's courtyard (Drucker and Heizer 1956, 370; Stuart 1993, 107; Gillespie 2015, 52). These celts were crafted from minerals found in the Motagua river valley in Guatemala; the serpentine originated in Oaxaca over 200km away (Gillespie 2015, 48). The makers of the figurines were involved in extensive networks to procure these special materials. The celts were numbered 1–6, and the figurines 7–22. The excavators suggested that the figurines represented not only a gift to the Jaguar god but an Olmec ceremony that was performed by humans (Drucker and Heizer 1956, 367). Figurine 7, carved from a conglomerate of granitic sand (and therefore distinct), was positioned away from the others, with its back to the celts, and facing towards the other figurines; these appeared in pairs (Gillespie 2015, 51). Drucker and Heizer (1956, 368) regarded Figurine 7 as a sacrificial victim or a specialist leader leaning against the celts with four men walking in a column towards him (with offerings or malintent), and a group watching on. They are generally described as elite males, as they are seen to wear breechcloths, and have elongated heads (Marcus 2009, 31).

While Figurine 7 is unique, the most spectacular is Figurine 22, with its bright green jade hue and black intrusions, and slight positional separation from the others. Next to Figurine 7, and in front of Celt 3, was found two fragments of figurine arms carved from decomposed schistose (Gillespie 2015, 56). These fragments were not properly recorded, assigned numbers, or featured in major publications and exhibitions; they have mostly been erased from the popular history of the site. It is possible that the arms formed part of a seventeenth figure now lost; their inclusion in the pit as fragments is interesting. Seven of the figurines have missing parts: some lack feet, arms, and one has half a face. As mentioned above, jadeite and serpentine are not easily broken; this suggests violent intentionality.

It appears that the things in Offering 4 were not made with the intent of deposition with each other. They were old before they were placed in the pit, with the

fragmented arms being the oldest (Gillespie 2015, 58; *contra* Drucker and Heizer 1956, 368). The assemblage of decorated celts in Offering 4 are slimmer than others found on the site; Celt 5 has evidence of use with battered edges, while Celts 1–4 are like each other in size, colour and texture (possibly from the same extraction site). It is possible that Celts 1–4 are fragmented parts of an original larger piece, with the drill holes on Celt 4 being employed for suspension (Gillespie 2015, 58). The incised designs are very faint, but may have formed a cohesive image. What we can see, is that after fragmentation, the centre parts of the celts were highly polished. This suggests that they were handled for a long time after breakage (Gillespie 2015, 58). Celt 1 exhibited at least three old breaks and was discovered in two pieces; Celts 5 and 6 were placed slightly apart from the others and had different material qualities. Similar to fragmented objects found in Jōmon Japan (see Chapter 5), Celts 1–4 illustrate deliberate breakage and reassembly in a new context (Gillespie 2015, 60). That celts are broken and deposited in pits is noted elsewhere in the world. For instance, in the Late Neolithic site of Kremasti-Kilada, northern Greece, we find celts that are deliberately decommissioned (whilst still fully serviceable) and then placed out of circulation in the ground (Stroulia and Chondrou 2013, 114–122). Significantly in La Venta, the breaks on these celts align with the existing incised motifs – the disjunctions are across the design – with edges eventually worn smooth by human hands.

Gillespie (2015) argues that Offering 4 is often presented as a single entity. This, however, overlooks the individual members of the group of artefacts:

> The individual artefacts have been objectified. The gathering of significations, biographies, itineraries, and enchainment's of the artifacts, along with their prepared enclosing materials and the spatial locus of the cache next to the Northeast Platform before the old rose floors were laid, have been ignored.

To reverse this, Gillespie (2015, 61) suggests that the potential exists to analyse the individual artefacts in terms of their individual itineraries, returning to them their thingness. All this suggests that the grouping of these artefacts is momentary, and we also need to take into account both their past and future trajectories.

Breaking out in Knossos

The earth trembles, the buildings fall, the people flee. Riding through a wine dark sea, the island of later Neolithic and early Bronze Age Crete is perfumed by herbs and wild flowers. It is a world popularly characterised by athletic men, barechested women and snake reverence. It also produced some of the most iconic sculptures in the world, among them the so called 'Snake Goddess' figurines from Knossos (c.1900–1100 BC). Excavating in 1903, Sir Arthur Evans and his team discovered two cists within the floor of the site commonly known as the Palace of Knossos, on Kephala Hill (Evans 1921; Renfrew 1972). The cists were created

in the transition between the Proto-palatial and Neo-palatial phases; meaning they occurred between the destruction and rebuilding of the Minoan Palaces (Simandiraki-Grimshaw and Stevens 2013, 155). At various points in its history, Knossos participated in relations with the Aegean, the Greek mainland, Turkey, the Levant, and Egypt (Boileau and Whitley 2010; Efstratiou et al. 2013).

Within the two cists (known as East Temple Repository and West Temple Repository) was found fragmented faience (a type of glazed ceramic ware) figurines (Figure 7.3). The stratification in both the stone-slab-lined boxed cists, was



Figure 7.3 Faience figurine from Knossos, Greece. Image Copyright: Ben Alberti

almost identical, but the eastern one contained the more spectacular finds (Evans 1921, 466). Each cist contained three distinct layers, variously comprising: red earth, rubble, charred wood, pottery, gold foil, faience, flora and fauna remains (e.g. corn and weasel), and the fragmented figurines. The figurines were seen as parts of a Snake Goddess or her votaries (c.340mm max. height) by Evans (1921, 289, 500), who envisioned links with the gods of Ancient Egypt, particularly Wazet, the snake goddess of the Nile Delta. Here, we will focus on the details of the actual sculptures themselves. In total, 13 figurines were discovered in varying states of fragmentation; apart from one, all humanoid-looking fragments were found in the East Temple Repository (Simandiraki-Grimshaw and Stevens 2013, 156). We seem to have not only deliberate breakage but also specified deposition. For instance, Figurine 210 (also known as The Goddess) was dismembered and decapitated. The upper portions of the figurine were placed in the East Temple Repository, while the lower sections made their way into the West Temple Repository (Evans 1921, 495ff; Simandiraki-Grimshaw and Stevens 2013, 158–159; see Figure 7.3). Evans provocatively describes the figure as having bare breasts of 'matronly proportions' (1921, 500).

Although Evans (1921) suggested that the broken figurines represented the remains of plunder or accident, they appear to have been purposefully fragmented (Simandiraki-Grimshaw and Stevens 2013, 161). Both Figurine 210 and 211 present identical breakage patterns: they are both decapitated, have the left arm removed, and broken below the hips. They demonstrate fracture lines caused by impact from a heavy instrument or by being held in the hand and smashed into a harder surface (Simandiraki-Grimshaw and Stevens 2013, 162). The two broken breccia hammer stones found in the West Temple Repository might be complicit in such actions (see descriptions of them in Evans 1921, 468–469). Interestingly, the figurines were mostly created with articulating arms (which is not the easiest thing to do in faience). We note that similar actions occur at other times and places. For example, the late Ice Age mammoth ivory sculpture from Brno, Czech Republic, was fragmented and has appendages that move (Sandars 1968, 8; Cook 2013a, 48). This might indicate that even before breakage, with some sculptures, there were relationships with movement (performance, puppetry, shadow play), symmetry and animation (Simandiraki-Grimshaw and Stevens 2013, 164; Cook 2013a, 49). The sequences of events at Knossos appear to be:

- The head of Figurine 210 is broken off and placed in the East Temple Repository.
- The arms of Figurines 213 and 214, and hand of Figurine 216, are removed and put in the East Temple Repository.
- The 'robes' of Figurines 217, 218 and 219 are snapped and placed in the East Temple Repository.
- The 'skirts' of Figurines 210, 211 and 212 are broken at the waist; Figurine 211 is snapped at the waist and its right arm is removed and retained. All deposited in the East Temple Repository.

- The decapitated torso of Figurine 210 has its right arm removed/retained, and is snapped at the waist. The upper part in placed in the East Temple Repository, while the lower part is in the West Temple Repository (Simandiraki-Grimshaw and Stevens 2013, 166).

What we have is not only intentional mutilation, deposition and assemblage, but also the deliberate separation of parts. Simandiraki-Grimshaw and Stevens (2013, 165) argue that in the past, these particular figurines were never thought of as complete – focus was always on the allure of fragmentation. This probably works best via non-linear mechanisms. How things can change, from moment to moment is significant (Harris and Robb 2012). Significances arrive via creative destructions; interestingly, this mirrors how they are seen in the archaeological literature today.

Making and mobility

Materials are in a constant state of flux, and the acts of making involves a creative tension, a set of practices, lying somewhere between destruction (unconstitution) and making (constitution), remembering and forgetting (Buchli and Lucas 2001, 79–83). The process of making art is always in flux, a constant process of destruction of what has been, and (re)constitution of what is, and what might be. Such oscillations are especially affective; they are both destructive of one set of attachments and productive of fresh ones. Doing is always an undoing, and vice versa.

In recognising that things are often mobile (they rarely stay in just one place), and to move beyond the linear narratives of the *chaîne opératoire* or humanist cultural biography, some are now proposing we think of things as moments on a journey or itinerary (e.g. Joyce and Gillespie 2015); others have noted the intersecting multiple character of these narratives (Conneller 2011; Jones et al. 2016). The processes involved in fragmentation and assembly are twin components of a movement, or flow. We will consider these processes in more detail below.

Fragmentation, assembly, assemblage

The case studies discussed in this chapter exemplify two different practices: fragmentation and assembly. We have seen how artefacts, such as the Hamangia and Knossos figurines, are deliberately fragmented. We have also seen how the La Venta Offering 4 involved grouping figurines together, an act of assembly through which individual figurines lost their identity and became part of a new entity: the group. Each activity is affective. The destruction of images alters the character of the image and lends it a new power; this is especially clear in the case of the Bāmiyān Buddhas. Fragmentation, meanwhile, enables relations to be maintained as broken objects are shared between people. Assembly, on the other hand, enables new relationships to be forged between things. Fragmentation, assembly and destruction are not clashing imperatives; they are moments in ongoing processes

of change. Each practice is enfolded in the other: fragmentation may enable fragments to be re-combined in new ways, the assembly of distinct components may lead to its eventual fragmentation and disaggregation.

We can consider these ongoing processes of change in terms of a wider process: assemblage. The notion of assemblage, while having a long archaeological pedigree, has recently been re-evaluated by the impact of scholarship in other disciplines (see recent *Cambridge Archaeological Journal* devoted to the topic; Hamilakis and Jones 2017). The clearest discussion of the new scholarship on assemblage comes from the work of political theorist Jane Bennett (2010) who examines the agency of assemblage. She draws on the philosophies of Baruch Spinoza, and Gilles Deleuze and Félix Guattari, to define the agency of assemblage. Spinoza discusses 'affective bodies': that elements of the world are composed of a series of bodies, and each body is continuously affecting and being affected by other bodies. Deleuze and Guattari develop Spinoza's notion of affective bodies and conceive of assemblages as composed of heterogeneous groups of bodies interacting together. As Bennett (2010, 34) puts it: 'an assemblage owes its agentic capacity to the vitality of the materialities that constitute it'. This point signals that the concept is relational: each of the bodies that compose the assemblage relate to others in the assemblage. Therefore, the specific composition of assemblages is significant, as the configuration of the assemblage will depend on the particular capacities and agencies of the bodies out of which it is composed.

Likewise, in *A New Philosophy of Society* Manuel DeLanda (2006) explores assemblages as a new way of describing social ontologies. DeLanda argues that thinking of societies as assemblages offers a useful alternative to organic or totalising accounts of societies. He summarises the main features of assemblage theory: assemblages are made up of parts that are self-subsistent and articulated by external relations, so that a part may be detached and made a component of another assemblage (DeLanda 2006, 18). He goes on to point out that assemblages are characterised along two dimensions. The first dimension specifies the variable roles that component parts may play, from a purely material to a purely expressive role, as well as mixtures of the two. The second dimension characterises the processes in which these components are involved: these might be processes that stabilise or destabilise the identity of the assemblage (DeLanda 2006, 19).

There are three points that we want to distil from this discussion of assemblage. First, that assemblages are composed of multiple and heterogeneous parts or fragments that are relationally articulated. Second, that assemblages are unstable entities, whose stability depends upon the articulation between its component parts. Third, the relations between component parts are affective in character.

This chapter has explored the kind of affects produced by processes of destruction, fragmentation and assembly. Each of these activities is brought into focus as moments in the ongoing flux and flow of matter, as matter becomes disaggregated from one kind of assemblage, and incorporated with another. The act of disaggregation and reincorporation are powerful. Such acts are especially powerful as

these re-combinations produce new kinds of ontologies; new ways of configuring the world.

Here we have especially focused on the practices of fragmentation, destruction and assembly. We explore the concept of assemblage further in our analysis of style (Chapter 8), meaning (Chapter 9) and, in the concluding chapter, examining images in the making (Chapter 12).

8

STYLE, TECHNOLOGY AND PROCESS

Andrew Meirion Jones

Certain concepts are fundamental to the study of art. One of these concepts is style. Over the past decade, the author has been teaching Masters courses on the archaeology of art, and style is a perennial topic. Year on year the same complaints are heard from students: style is such a tricky concept. One year, a student perceptively noted of style that 'just as you begin to grasp it, it slips away from you'. This comment seems especially pertinent.

Style: just as you begin to grasp it, it slips away from you. It is little wonder that students of archaeology are confused by the concept of style, as professional archaeologists seem to be equally puzzled. Style is variously described as a 'black-box' (Conkey 1990, 5) or an 'omnibus' (Sackett 1977, 369) denoting that it seems to be both a catch-all category and a fuzzy concept. For many archaeologists, style equates to formal variation (Sackett 1977; Wobst 1977): changes in the form of objects relate to different styles. For other archaeologists, style is a 'way of doing' (Hodder 1990; Weissner 1990; Conkey 1990); some archaeologists have described these different definitions as a distinction between protocol and panache (Macdonald 1990). Most archaeologists appear to agree that artefact styles are communicative (Wobst 1977; Weissner 1983). Style is regarded as quasi-functional as it is assumed to work in cultural systems as an avenue of communication; styles are argued to participate in processes of information exchange (Wobst 1977, 321). Expanding on this idea of style as communication, styles are argued to communicate in a variety of ways: styles might be emblemic ('formal variation that transmits a clear message to a distinct target population'; Weissner 1983, 257; Wobst 1977) or assertive (styles carrying information that supports individual identity; Weissner 1983, 258). Styles relate to differences in the form of artefacts, and to ways of doing. As such, styles are argued to act communicatively: to signal social information. Style is thought of as that part of formal variation that conveys information.

Almost all these assertions concerning style can be questioned. They can be questioned largely because they make misplaced assumptions about representation: they assume that the primary role of styles is representational, and that style specifically functions to represent difference. The notion of style as presently conceived in archaeology is an excellent example of the representational fallacy.

There are two steps along the road to this fallacy in the literature on style. The first is to argue that different variations in the forms of artefacts belong to different 'styles'. The second assumption is that because style is not immediately obviously functional, the different forms of styles must exist to signal information. Here archaeologists seem to have it both ways: style is not functional, so it must *function* to signal identity! It is as if past makers of artefacts began the task of making by intentionally setting out to represent different forms that could be discerned stylistically by archaeologists. Because these different forms exist, they are assumed to mean something; therefore, they must function to signal different identities. This approach assumes that artefacts are simply vehicles for representational meaning; the problematic (and well worn) distinction between matter and mind is apparent here.

One of the key problems is that the current approaches to style assume that styles are fixed and predetermined. Archaeologists assume that makers set out to produce certain forms from the outset, and they appear to do so without engaging with materials in any way: it's almost as if styles are cast in predetermined forms like manufactured goods on a production line. Because of this, these predetermined forms are then held to convey meaning; to signal social information.

Making style

Philosophers employ a technical term for the assumption that artefact styles are fixed and predetermined: a hylomorphic approach. The literal Greek translation would be *hyle* (matter) and *morphe* (form). It describes a philosophical outlook that assumes a sharp distinction between form and matter. As Tim Ingold (2013, 20–21) puts it, 'whenever we read that in the making of artefacts, practitioners impose forms internal to the mind upon a material world "out there", hylomorphism is at work'. We would argue that this is precisely the approach taken by archaeologists discussing and analysing artefact styles. As the philosopher, Gilbert Simondon (2005) argues, the hylomorphic perspective is the kind of approach taken by people divorced from the making process, who understand little of how matter takes the form it does. To think around this problem, we need to pay much more attention to the relationship between maker and materials. Lambros Malafouris (2013) offers a useful example in a potter making a clay vessel. In an extensive discussion of the attribution of agency in pottery-making Malafouris (2013, 207–226) points out that we need to overcome two important misconceptions. He terms them 'externalist' and 'internalist'. An 'externalist' approach would simply focus on the products of creativity: the material forms created. An 'internalist' approach would look for the source of creativity in the mind or brain. Archaeologists interested in stylistic analysis tend to focus on what Malafouris calls an 'externalist' approach, as this helps them understand how the products of creativity can be classified, compared and interpreted. Such an approach bypasses the uncertainty and fluidity of the making process. To get around these problems Malafouris (2013, 213) argues that we should get rid of previous assumptions

about the hierarchy of either the potter's brain or mind, the potter's body, and the clay, or the potting wheel:

> We should assume, instead, that every mental recourse needed to grow a vessel out of clay may well be extended and distributed across the neurons of the potter's sense organs, the affordances of the wheel, the material properties of the clay, the morphological and typological prototypes of existing vessels, and the general social context in which the activity occurs'

In the discussion above, Malafouris moves us away from a hylomorphic perspective. The form of the clay vessel is not the result of imposing form on brute matter, instead forms are the result of complex intra-actions between makers and materials. This offers an important way forward for thinking about archaeological definitions of style.

To understand style, we need to return to first principles and consider what styles are composed of: to think about styles in the making. It is important to recall that one of the many definitions of style was a 'way of doing', while another common definition is the idea of style as formal variation. These two definitions could be profitably combined by considering much more closely the relationship between style and technology (Hegmon 1992, 529–530; Hegmon 1998; Lechtman 1977). In Chapter 3 we began by considering gestures, and discussed the way that gestures are interlinked in operational sequences or *chaînes opératoires*. In fact, when we consider it, styles are composed of gestures. Heather Lechtman (1977) describes the use of gestures in technical performances as 'technical style'. For Lechtman technical styles are organised, identifiable and consistent ways of acting technically. If styles are made up of gestures, of identifiable technical styles, then they are composed of human gestures engaged in the activity of working with materials.

When we consider styles as gestural actions working with materials, we shift away from hylomorphic perspectives that present styles as predetermined and fixed. One of the aims of this book is to argue that archaeologists should consider the consequences of a practitioner's perspective on art: to think about making artworks. To do so means that we appreciate that engaging with materials is not a process of simply carrying out a series of steps to make a predetermined form, but more of a 'passage along a path in which every step grows from the one before and into the one following, on an itinerary that overshoots its destinations' (Ingold 2013, 45). A process that is led by the material, as much as by the human hand. To make artefacts of certain styles is a technical performance involving a degree of improvisation (see Chapter 4). If styles are the result of improvisations with materials, then we have to accept that they are less the result of predetermined actions, and more the result of engagement with different materials. As such, styles are not fixed: they are ongoing. For this reason, it is a fallacy to assume that distinct stylistic features of artefacts were predeterminedly intended to represent identity or

signal information. To illustrate the usefulness of an approach to stylistic analysis that takes account of technical styles or *chaînes opératoires* we will now examine a case study from Pre-Hispanic Chile, South America.

Techniques of making rock art in Pre-Hispanic Chile (AD 500 to 1540)

Archaeologists Francisco Vergara and Andrés Troncoso (2015) examine the rock art of two communities in Pre-Hispanic Chile – hunter-gatherer and farmer – from a technical perspective. The hunter-gatherer communities date from AD 500–1000, while the farming communities date from AD 1000–1540. Vegara and Troncoso examine rock art motifs in the river basin of Valle El Encanto, Chile and distinguish two major groups of motifs: the Limari style, associated with circles, circles with appendages and headbands, known as *cabeza-tiaras*, and the El Encanto style associated with a variety of non-figurative motifs. In total, 72 rocks with rock art were identified. All rock art was produced on granodiorite rocks rich in quartz and feldspar minerals.

The location has a rich archaeological context; 101 bedrock mortars have been discovered in the El Encanto region, with over 400 individual grinding hollows. It is assumed that these were used for the processing of plants by hunter-gatherer communities, and indeed microfossils of maize have been found in one of them in Valle El Encanto. Excavations in the region demonstrate the existence of domestic occupation, and human burials dating from the Late Archaic and Early Ceramic periods. These occupations relate to residential mobility amongst hunter-gatherer populations from 2200 BC to AD 1000.

One strategy for understanding the rock art is to discuss stylistic differences and social meanings amongst the two styles. For example, Vergara and Troncoso (2015, 36) note that the *cabeza-tiara* motifs that typify the Limari style in the region have been linked to Andean concepts of the head representing high-status people, and fertility and power. However, in an effort to understand the differences between the two rock art styles – Limari and El Encanto – Vergara and Troncoso instead focus on the dynamics of technology and production. They analysed a sample of 65 motifs distributed over 38 engraved rocks. The sample was arrived at by considering stratification, and covered different styles and types of motifs. The analyses considered 15 Limari style and 50 El Encanto style motifs, comprising 50 per cent of the Limari group and 28.9 per cent of the El Encanto group. They examined two technological variables: grooves and negative impact scars on rocks. The results of their studies showed that the two styles were distinguished by their technological and productive differences. The Limari group exhibit the almost exclusive use of continuous grooves, whereas the El Encanto group exhibit continuous and discontinuous grooves, covering continuous and discontinuous areas. The absence of cortex (the covering layer on the rock surface) is predominant in the Limari rock art, while the El Encanto motifs did not involve the removal of the surface cortex. There were also metrical differences

in the width and length of grooves, and textural differences: the Limari motifs were smoother than the rough surfaces of the El Encanto group. The El Encanto motifs were most likely produced through pecking: repetitive striking of the rock surface, while the Limari motifs were produced by a combination of pecking and abrading. As Vergara and Troncoso (2015, 38) note, all of these differences suggest there were 'a variety of technological options associated with the techniques, gestures and instruments used in the act of striking the rock'.

Vergara and Troncoso argue that the Limari motifs with their characteristic deep grooves suggest that the practice of making rock art did not emphasise the production of many motifs in the landscape. It was 'focused on marking some rocks, on making deep images on them, acting once and again over the same image' (2015, 40), possibly linked with the temporary, but repetitive, nature of residential mobility amongst hunter-gatherer populations. By contrast the makers of the El Encanto motifs were more interested in creating new designs in different spaces within the region than in deepening the same figures. The labour invested in the Limari rock art is reflected in deep, large-scale rock art motifs. That invested in the El Encanto motifs is reflected in a greater number of motifs and a wider network of interventions over the region (Vergara and Troncoso 2015, 41). The technology of rock art made by later Diaguita-Inca populations – associated with the El Encanto motifs – broke with the previous *chaîne opératoire* and the spatial segregation of these rock art motifs from settlements implies a new strategy for inhabiting cultural landscapes (Vergara and Troncoso 2015, 42).

Importantly the technological changes that Vergara and Troncoso identify in their case study imply significant social changes, with modifications in settlement patterns, movement, audiences and landscape inhabitation. This case study provides an excellent example of how technique relates to style. It also shows that style cannot simply be reduced to the functional attributes of signalling information, but is equally enmeshed in a series of other aspects of human activity, relating to shifts in economy, settlement and landscape occupation. As Vergara and Troncoso (2015, 43) put it, 'technology acts as a discursive element that articulates gestures, techniques and tools for specific audiences . . . and spaces of action'.

Style, change and time

The problems of the hylomorphic perspective when thinking about style were discussed above. We have learnt from Vergara and Troncoso's case study that thinking about the techniques of making is enormously helpful to our understanding of style: it has shown us just how important it is to consider technique when thinking about how styles are made. We have emphasised that styles are made, and are not the result of predetermined intentions. But if we are thinking about making styles, there is another aspect missing in our account: time. If we agree that styles are the result of operational sequences, or *chaînes opératoires* of making, then we must recognise that the archaeological record must consist of various stages along this chain of making. As well as excavating complete examples of certain styles, we

will also excavate incomplete examples; fragmentary components of processes of working.

For some time now, archaeologists have recognised that few archaeological sites are like Pompeii (Binford 1981, Schiffer 1985). Pompeii, Italy was famously buried by volcanic ash in an instant, and the life of the Roman town was frozen in time giving the archaeologists who subsequently excavated it unprecedented knowledge of life at the moment of the catastrophe. Most archaeological sites are not formed in this way; they are gradually abandoned over a period of time. Archaeological analysis needs to reflect this; archaeologists need to remember that they are witnessing moments in the unfolding of the life of the archaeological site. For this reason, Michael Schiffer (1976) and colleagues developed 'behavioural archaeology' whose broad aim is to understand 'the relationships between human behaviour and material culture in all times and places' (Schiffer 1976, 4). To do this, Schiffer developed a series of strategies for understanding the development and formation of an archaeological site. The four major strategies that Schiffer lists need not bother us here. For our purposes, one of the most interesting is strategy 2, which aims to understand contemporary material culture as a guide to understanding the past. Schiffer (1976, 6) asks several pertinent questions, such as: 'What are the traces of various techniques of manufacture on a given type of material?' and 'Why are whole, usable items sometimes discarded?' These are questions about making and discarding objects. They are also questions concerned with time and process, with understanding why specific sites contain the specific artefacts that they do. Is it because these specific artefacts are very common, or is it because they are frequently made and discarded? Schiffer (1972) argued that archaeologists need to appreciate the difference between archaeological context and systemic context. Artefacts have lives and uses in cultural systems (the systemic context) before they are discarded and subsequently excavated by archaeologists (the archaeological context). The aim of behavioural archaeology is to better understand this process:

> While one may readily visualize the flow of pottery, or food, or even projectile points, through a cultural system, it is the case that all elements enter a system, are modified, broken down, or combined with other elements, used and eventually discarded. This is so even for those elements, such as houses, which at certain points in time appear to be permanent features. This observation can provide the basis of a simple flow model with which to view the life history of any element, and account behaviourally for the production of the archaeological record.
>
> (Schiffer 1972, 157)

The implications of this for the study of style may not be immediately obvious, but they are clear. Is it possible that what archaeologists describe as components of distinct styles are in fact steps along a pathway of making, discarded in the process of making? Rather than being distinct styles, could artefacts of similar

appearance and decoration not simply be various stages along a sequence of technical/stylistic development? Archaeologists need to be open to understanding processes of change, and of appreciating processes of testing and experimentation in the archaeological record. In fact, there are many examples of discarded test pieces in the archaeological record of various periods. For example, there is a practice drawing of a horse on a piece of bone from Montastruc, France attesting to processes of testing and experimentation in the Upper Palaeolithic (Cook 2013a, 188). Again, a series of bone and wooden objects dating to the eleventh century AD in the 'Ringerike' style from Viking Dublin, Ireland (Graham-Campbell 2013, 153) are test pieces for designs that are also found in metalwork, especially reliquaries (containers for sacred relics). In each of these cases, we can think of these artefacts not as distinct styles, but as routes along a technical pathway that will lead to other designs and styles.

Style and design in the pottery of the American Southwest

The most sophisticated understanding of these kinds of processes comes from work on the design systematics of Pueblo pottery from the American Southwest. Stephen Plog (1980) discusses the archaeology of the Chevelon Canyon region of Arizona, New Mexico and Utah, USA over a period from the fifth century to around the twelfth to thirteenth centuries AD. For most of this period, the region would be culturally classified as Mogollon. Architecturally, the earliest settlement structures are pithouses; in the later periods, the typical structure is horseshoe shaped (Plog 1980, 30–31). The painted pottery found in the region is known as Tusayan White Wares for the earliest periods, Little Colorado White Wares in the middle periods and Cibola White Wares in the later periods (Plog 1980, 29). Much of the painted decoration on the pottery is of black pigments on these White Wares.

Plog (1980) is interested in examining a perennial archaeological problem. He notes that stylistic variation has been used as a common method of dating sites, and he also discusses the use of stylistic variation as a method of studying social interaction (Hill 1970; Longacre 1970) on the assumption that degrees of stylistic variation relate to degrees of social interaction and proximity. He argues that these two uses of style are contradictory: one views stylistic attributes as varying over time, the other views them as varying over space. Might there be problems with both interpretations? Rather than time simply being a reference, might change over time be the cause of stylistic variation?

Plog (1980) takes a rigorous and systematic approach to design. He argues that many previous studies of design have not compared like with like, or compare styles in use with those that have gone out of use. Based on Freidrich's (1970) work on Mexican traditional pottery, he also argues that archaeologists need to take account of how designs vary with pot shape: where do designs occur on pottery? All this suggests that it is insufficient to compare 'designs' in an abstract sense. One of the key points that emerges from this is his insight that pottery

decoration is hierarchical: different design motifs are painted on pottery, and these are done in a certain ordered sequence. Potters are making a series of decisions as they paint. Plog's stylistic classification is therefore hierarchical in that 'it emphasizes alternative choices made by the potter at different points in the process of decorating a vessel' (Plog 1980, 53). There are a series of steps in the decorative process at which different decisions must be made (Figure 8.1). Notably, Plog's analysis violates some of the insights into making we discussed above – in Plog's view, the painting of designs is wholly determined by the potter rather than the materials – however the important point to be extracted from his analysis is that stylistic analysis must take account of sequences of making. It is important to appreciate that the making of styles unfolds over time, and archaeologists need to recognise this fact when excavating and analysing artefacts of different styles.

Plog's analysis examines the variation for the most significant differences in 'design attribute frequencies', or variation in design motifs. His analysis isolates two pottery classes on the basis of the 'relative frequencies of different primary forms, types of design composition, and types of hatching' (Plog 1980, 112) and argues that these pottery classes are characteristic of two cultural traditions in the American Southwest, the Anasazi and Mogollon. He then argues that these stylistic and design variations occur as the result of social interaction occurring with the well-documented population movements in the American Southwest during the period (1980, 129–134).

The precise interpretation of these stylistic and design variations need not detain us here. More important for us is that Plog recognises that design motifs are built up over time, and that we need to take account of, and chart, each of these steps in

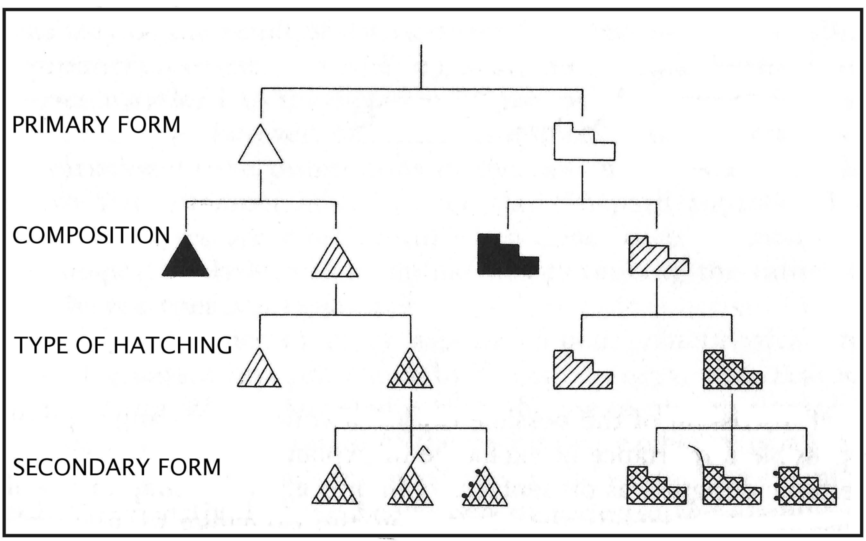


Figure 8.1 Design sequences in Southwestern pottery. Image by Hannah Sackett, redrawn from original in Plog 1980

the decorative processes. Archaeologists will excavate pottery bearing examples of designs at various stages of completeness and we need to build this into our analyses. This is precisely what Plog does in his analysis: he incorporates this insight in his stylistic classification to provide a sophisticated understanding of social change in the American Southwest.

Making and discarding torcs in Iron Age Britain

In the example above, we looked at the hierarchical stages of painting designs on pottery vessels. This gave us an insight into the fact that we may excavate partially completed designs or styles, and that making unfolds in a certain sequence. This sequence of making may be more or less complex depending on the materials involved. Pottery is formed and painted and when fired is fairly durable. When pottery is found in the archaeological record, it has undergone relatively little transformation from its state post-firing; it may have broken, but its form is similar (this is one of the reasons pottery is so valued by archaeologists as a stylistic indicator). Other materials may be more readily recycled and reworked. This is particularly the case for metalwork. To examine this, we will now turn to a remarkable series of deposits of decorated Iron Age torcs from Snettisham, Norfolk, England (Figure 8.2).

Torcs are collars made of a variety of metals, including copper, silver and gold. Torcs from Iron Age Britain are typically made of a series of individual strands

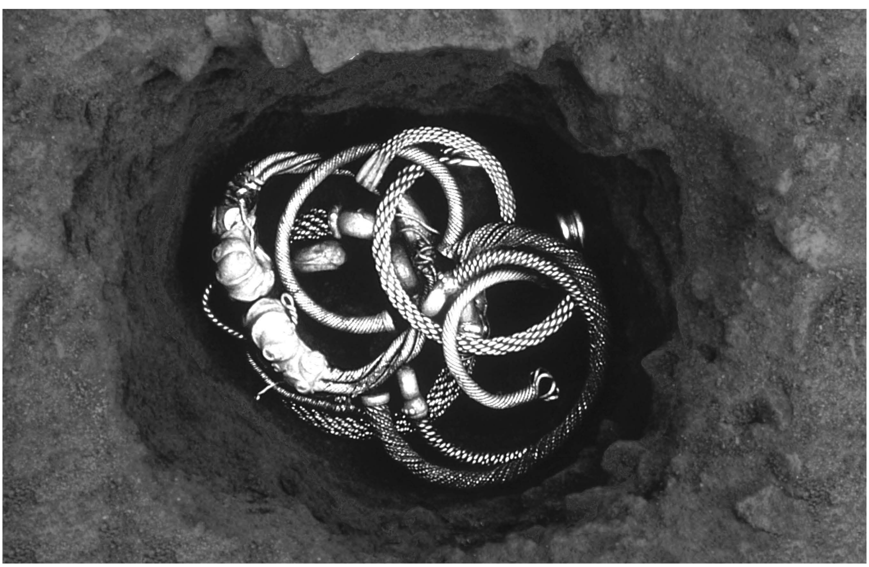


Figure 8.2 Torcs from Snettisham, Norfolk, England. Photo Copyright: Trustees of the British Museum

of wire twisted rope-like into substantial bunches. Several braids of twisted wire are then completed with decorated metal terminals. The series of hoards at Snettisham, discovered between the late 1940s and 1990s, have been described as a 'Gold Field' (Stead 1996, 49). Snettisham produced 12, possibly 14 hoards (the site has been subject to looting so it's difficult to be certain about the numbers of hoards). The makeup of these individual hoards is complex, and many hoards contain a wide range of styles. Significantly while there are 75 more-or-less-complete torcs, there are fragments of 100 more (Stead 1996, 49). Hoard F consists of 587 separate items, some strung or fused together, and many in a fragmentary state. Along with wire, ring and straight ingots, a range of torc types was found with cage, buffer, reel and ring terminals (Garrow and Gosden 2012, 138). Hoard L was different from hoard F – it consisted of a pit with two sets of nested torcs separated by 17cm of soil. The upper set was of seven silver and bronze torcs. The lower deposit was of four gold torcs, seven gold-silver alloy torcs and one of silver. These torcs were also accompanied by bracelets (Garrow and Gosden 2012, 140).

At Snettisham, torcs are found in a variety of states of completion, from raw materials in the form of ingots to magnificent finished artefacts such as the so-called 'Grotesque torc' and 'Great torc'. In other cases, a number of fragments of tubular torcs were found that had been folded over as a container for five coins (Garrow and Gosden 2012, 140). While torcs are evidently grouped together in hoards or assemblages, we might also consider individual torcs themselves as assemblages. Torcs are composite artefacts and are also repaired (Meeks et al. 2015); they are composed of a series of differing parts.

The Snettisham torc hoards are a good example of the processes of recycling, reworking and discard discussed above by Schiffer; they illustrate the problems of examining distinct styles – in the Snettisham hoards a series of styles are deposited together – and the complexity involved in making artefacts of distinctive styles: these may be produced of artefacts of other styles and forms. Garrow and Gosden (2012, 157) remark of hoards that:

> processes in the past made, or at least enabled, those objects to come together. The fact that they then came to be deposited – irrespective of the reasons why they were deposited – ensures that we have some traces, a 'snapshot', of those processes to investigate in the present.

We gain a sense then of a moment, a coming together, a point of assemblage or intra-action, in the Snettisham torc hoards.

The Snettisham torcs admirably illustrate the complexities of understanding processes of making archaeologically. One of the important points that the torc hoards underline is that styles are made, they do not spring into being fully formed, they are in a continual process of becoming and change. They have been assembled.

Styles as assemblages

Styles then are not singular entities: they are composed of assemblages. We have seen this clearly with the remarkable hoards of torcs from Snettisham. The Snettisham site itself offers an example of an assemblage, an intersecting tangle of different torcs and other metalwork, in various stages of fragmentation, repair and completeness. But this is only part of the story. The Snettisham torcs are part of a much greater regional grouping of torcs found in East Anglia, eastern England (Garrow and Gosden 2012, 137). The assemblage associated with the Snettisham torcs is much more extensive.

The emergent character of styles has been previously discussed by the author (Jones 2001; 2007) in a discussion of British Bronze Age pottery and metalwork designs. He discusses the way in which pottery and metalwork are organised on the pages of archaeological corpora (books containing illustrated lists of artefacts of certain types or styles). The fact that archaeologists can make comparisons between artefacts of similar styles often goes undiscussed. How would people in the Bronze Age making decorated pottery and metalwork have related to previously made artefacts? They would have referenced other styles and types of decoration familiar to them while making novel artefacts. In fact, the style, form and decoration of artefacts each reference other styles and types of decoration. Each style cites or references others. Makers are then situated in citational fields or networks: each single artefact made is a node in a network of reference that extends through time and across space (see also Fowler 2017 on the parallel concept of relational typologies).

We have arrived then at the concept of styles as networks or assemblages linked by acts of citation or reference. As Gavin Lucas (2012, 201) points out: in a sense citation underlines the idea of style. The fact that a potter makes a storage jar that looks like the one he made previously is a form of citation. It is this repetition of material action that distinguishes the storage jar stylistically. However, to recall Malafouris' discussion of making pottery (discussed above) it is not simply the repetition of gestures that forms the pot stylistically. It is how these intersect with the materials used to form the pot. Styles-as-assemblages then consist of a host of things: technology, technique and material.

A good example of this comes from the analysis of two statue-stelae (decorated standing stones) from Late Bronze Age Seville, Spain, discussed by Marta Díaz-Guardamino and colleagues (2015). The two statue-stelae from Setefilla and Almadén de la Plata 2 depict human figures with probable shields (Figure 8.3). The Almadén de la Plata 2 figures also have a distinctive diadem or headdress. The Setefilla motifs are carved on a large slab of limestone, while the Almadén de la Plata 2 motifs are carved on a volcanic rock, probably tuff. Although not identical, in conventional terms the two images would be part of the same stylistic grouping. Analysis using digital imaging (especially using the technique known as RTI, Reflectance Transformation Imaging) reveals quite different techniques and sequences of carving associated with the two stelae. Should we discuss these

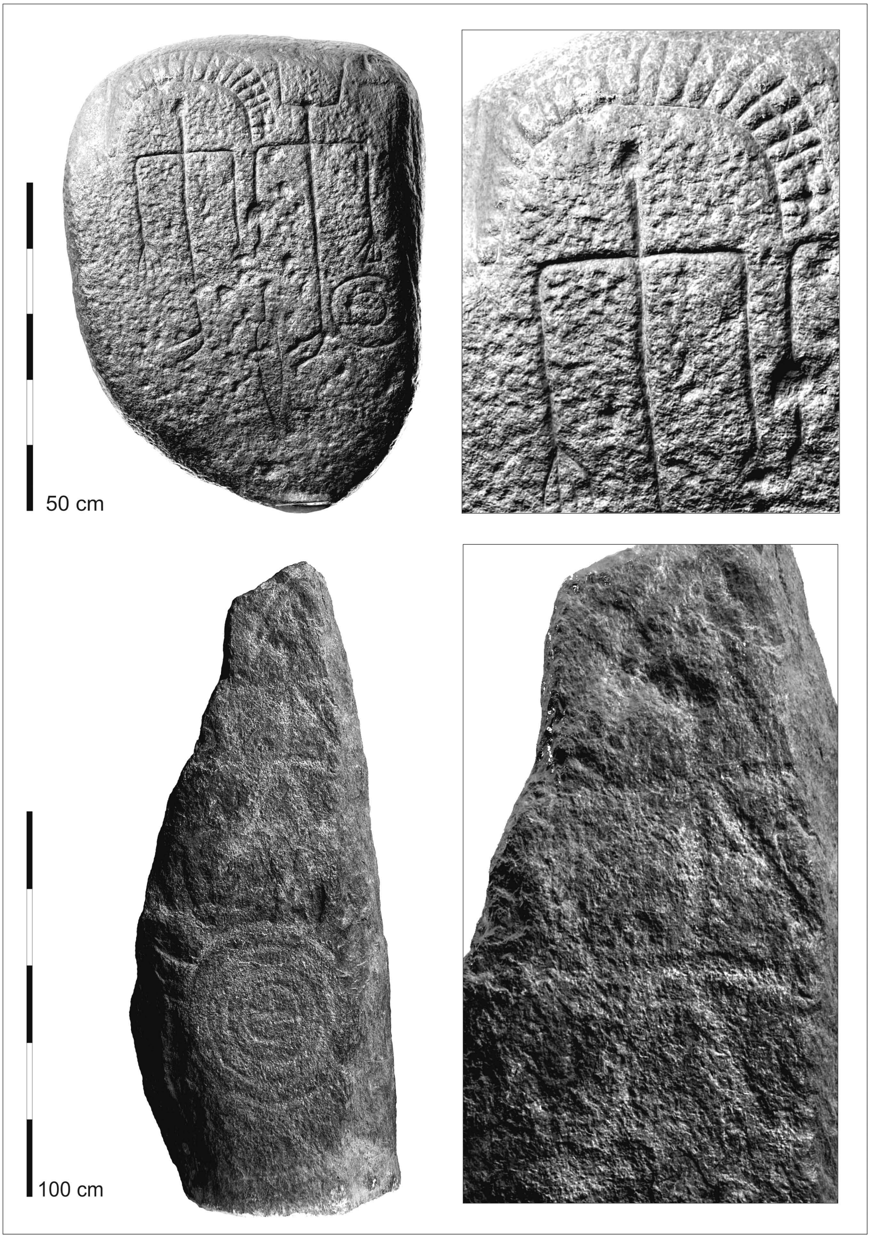


Figure 8.3 Statue-stelae from two locations in Spain. Top: Almadén. Bottom: Setefilla. Photo Copyright: Marta Díaz Guardamino

two stelae as stylistically similar? In terms of the motifs carved on their surfaces they have a similar visual appearance. But our analysis of style argues for more complexity. Styles are not simply defined by visual appearance, nor by technique or gesture. Instead, styles are intersections of technology, technique and materials. The Setefilla and Almadén de la Plata 2 statue-stelae provide an excellent example of this.

Styles are assemblages of techniques, technologies and materials. These assemblages are made and remade repeatedly as each iteration of style references (or cites) styles from other times and places. Is it enough to say that styles are composed of assemblages of techniques, technologies and materials? Is it sufficient to point out that what differentiates styles are the fact that these assemblages of actions and materials reference each other repeatedly? When does one style stop and another begin? What makes individual styles stable?

We can assume that styles are reasonably stable as archaeologists are adept at recognising and tabulating the different artefact styles that they excavate. But what lends them stability? As Lucas (2012, 201) argues, it is not enough that styles are cited or referenced: ‘citation does not guarantee stable enchainment between things; only if the citation is sufficiently recurrent and sufficiently extensive will it then act to stabilize networks, although this is a matter of degrees’. To understand how networks or assemblages of activities are reproduced and endure, Fowler (2013, 241–243) argues that the properties of assemblages endure if the relationships that gave rise to them endure. Lucas (2012) terms these enduring assemblages ‘serial objects’. Assemblages are inherently unstable and are subject to several forces: enchainment and dispersal, containment and exposure (Lucas 2012, 204). Lucas argues that assemblages are unstable and ephemeral, but the residue of assemblages can produce enduring things:

> the potter’s hands go to eat lunch, the tools go back to the bench, the remnant scraps of wet clay are tossed outside and washed away in the first rains or recombined with a new paste – all that remains is the pot itself. Almost all, if not all, objects are then strictly speaking residues of prior assemblages. Moreover, all such residues are inevitably reincorporated into new assemblages and may act as parts in enchainment or containment processes.
>
> (Lucas 2012, 204)

The artefacts that archaeologists excavate are residues of processes like the one described above. The variation in artefact forms recognised by archaeologists are the residues of these assemblages of making. Their style is the result of an assemblage of techniques, technologies and materials. Residues are the material outcomes of gestural techniques that engaged with materials. The persistence of styles can be partly explained by these material residues – artefacts that persist which can be called on and referred to in future acts of making – but they are also explained by the persistence and repetition of the assemblages involved in their

making; assemblages that consist of intersections of techniques, technologies and materials. This is what makes the enduring styles that are excavated, and categorised by, archaeologists.

Conclusion: lifting the lid on the 'black-box' of style

We have moved some distance from traditional definitions of style as communicative, or signalling identity. Instead we have argued that style is made up of gestures or techniques, and that these intersect with technologies and materials to make up assemblages. If these assemblages are repeated, then styles endure.

We have argued that traditional accounts of style began with the assumption that styles were made as the intentional result of the desire to communicate and signal differences of identity. We argued that this was false because it looked at style from the wrong end; it examines the end products of making, and makes assumptions based on these end products. It extrapolates back from the classification of these end products to the intentions of the producers. It should now be obvious that such an account is a partial reading of style; the end products of processes of making are simply single 'snapshots' in a far more complex process.

This chapter began by describing style as a 'black-box'. The term was used by previous researchers to describe the unfathomable and messy nature of style (e.g. Conkey 1990, 5). Black-box is also the term used whenever a piece of machinery is too complex to understand. In circuit diagrams a black-box is drawn around this element when cyberneticians only need to know about its input and output, not about how it works. As the science studies scholar Bruno Latour (1987) shows, remarkable things occur when we open these 'black-boxes' and reveal their inner workings.

In this chapter, we have opened the black-box marked 'style' to think about how it works. We have discovered that style was perceived as a black-box simply because archaeologists only looked at style in a partial fashion; they tended to base their judgements on style only on the basis of the end-products of complex processes of making.

There were other ways in which style appeared to resemble a black-box. Remember that black-boxes are drawn around areas of the circuit diagram that are especially complex: areas where we only need to understand the input and output. The archaeological understanding of style-as-information works in exactly the same way. Just as engineers and cyberneticians only need to know if a black-boxed circuit component is on or off, likewise archaeologists seem only interested in art styles if they are being used to signal (i.e., they are 'on') or not (i.e., they are 'off'). This was – and continues to be – a significant field of stylistic analysis in archaeology from the study of Palaeolithic Cave Art (Conkey 1980) to Palaeolithic figurines (Gamble 1991), and is a key feature of the analysis of rock art styles in Holocene Australia (McDonald and Veth 2006). Part of the reason this approach is so popular is that it ties style into a functional vision of human societies, particularly beloved of researchers studying the deep human past or

hunter-gatherer societies. Again, this is a partial view of style, based purely on the end results of processes of making. It offers an insufficient and one-dimensional understanding of style.

As an alternative to these approaches, we have argued that styles are the outcomes of processes of making. Processes in which relationships are worked out between communities of makers, each referring to (or citing) the others' activities. Styles are the outcome of an ongoing process of differentiation; styles are related in networks of reference and citation, but also as relational assemblages of techniques, technologies and materials. The differences between styles are the outcomes of different ways of doing, or configuring, things.

Conkey's (1990) characterisation of style as a 'black-box' is particularly apt. As already noted, in one sense it defines a partial and closed-off approach to style. But in another sense, it also captures a sense of style as a messy and complex concept. In this chapter, we have lifted the lid on the black-box. We have moved beyond a one-dimensional characterisation of style based purely on the visual appearance and form of artefacts. We have instead examined the set of processes involved in making styles, and argued that styles are composed of assemblages made up of techniques, technologies and materials. Having discussed style at length, we feel it would be wrong to now close the lid of the black-box. If anything, our analysis has argued against static and neat views of style. For us style is ongoing and shifting; the assemblages that compose styles are constantly being made, unmade and re-assembled. It is this that allows us to speak of stylistic change and variation in archaeology. Style is neither neat nor can it be easily contained and defined. As that Masters student perceptively pointed out years ago: just as you begin to grasp it, it slips away from you.

Our discussion of style prepares the way for an equally slippery topic – the analysis of semiotics and meaning in the archaeology of art – that follows in the next chapter.

9

MEANING AND MATTERING

Andrew Meirion Jones

To interpret is to impoverish, to deplete the world—in order to set up a shadow world of 'meanings.'

Susan Sontag (1964)

As Susan Sontag's combative quote indicates, the relationship between matter and meaning is complicated. Sontag was writing in the mid 1960s and her comments were written in frustration with art, literature, theatre and film critics who continually pursue the hidden meanings behind artistic expressions of all kinds, always in search of the 'real' meaning of the artwork. As Sontag (1964, 5) bitterly points out:

> interpretation amounts to the philistine refusal to leave the work of art alone. Real art has the capacity to make us nervous. By reducing the work of art to its content and then interpreting that, one tames the work of art.

Taming the work of art. This remark has resonances in the many debates in Medieval and Post-Medieval Europe relating to the relationship between matter and meaning, in which dissenters wished to question the holy power of images. Sontag's arguments concerning meaning join a long line of dissenters regarding meaning. We will look at some of these now.

The history of Christian worship has historically been fraught with debate over the material character of imagery. As early as the eleventh and twelfth centuries, dissident groups, such as those in Arras, France in the 1020s, and the followers of Peter of Bruys a century later, were charged with rejecting all material objects of worship even crosses, churches and cemeteries (Bynum 2015, 163). Peter of Bruys allegedly burned crosses, charging that they were instruments of torture, argued that churches were mere heaps of stones, opposed the giving of alms (material aid given to the poor) and denied any literalist interpretation of the Eucharist (or Holy Communion). These arguments prefigure the debates that took place in the fourteenth and fifteenth centuries leading to the Reformation.

These debates occurred in the late Middle Ages because holy matter was a central part of religious practice; material things were argued to be invested with holiness by the Church authorities, and sundry holy objects proliferated at the edges of Medieval society: ‘images, relics, bloody Eucharistic wafers’ (Bynum 2015, 167). These debates sprang up because the Church authorities argued matter could be imbued with holy power, while various dissident groups argued that in fact matter was inert, and that to worship material things was ungodly.

However, as Victor Buchli (2016) discusses, these later Medieval debates are echoed in the much earlier Christian practices of the ascetic. Ascetics aimed to retreat from society and reject the material world. One of the ways they achieved this was to mortify and reduce their bodily form. One of the most extreme of the ascetics was St. Simeon the Stylite, a desert ascetic who reputedly sat on a pillar for 36 years in an effort to mortify his flesh. Debates in antiquity (in the early centuries AD) focused on the significance attached to the materiality of the body (Buchli 2016, 43–44); should the body be regarded as inherently evil and useless, or neutral and useless, or neutral and useful? While being an ascetic appears to be about self-effacement, removing oneself from society, it is a deeply visual practice. Ascetic mortification must be visually witnessed to gain the ascetic purpose and impact: the body of the ascetic is itself a visual image. Buchli (2016, 46) argues that these early Christian practices of asceticism are linked in the desire to be visually witnessed with Byzantine debates over representation and iconoclasm.

Debates over matter and meaning have continued since the early years of Christianity, to the Byzantine Empire, through to Late Medieval and Post-Medieval dissenters. These debates stem from Greek philosophy. It was Plato, in his *Republic*, who formulated a mimetic theory of art (Plato 2007 [1955]). He proposed that art was mimesis, an imitation of reality. The mimetic theory challenges art to justify itself and accord itself a value. As Sontag (1964, 1) argues, Plato appears to have formulated this theory in order to rule that art is dubious. As he considered material things themselves to be mimetic objects, imitations of transcendent forms or structures, even the best painting of an object would only be ‘an imitation of an imitation’. Arguably all Western thought on art has remained trapped in the confines of the Platonic theory of art as mimesis or representation. Antique, Medieval, and Post-Medieval treatments of the image are variations of this mimetic theory of art. The theory remains with us today, and animates contemporary debates about the usefulness and value of art and creativity (Henley 2016).

We discuss these Ancient Greek, Antique, Late Medieval and Post-Medieval theories and debates here because of the resonances they have: it is from these debates that contemporary discussions concerning the symbolism, representation and interpretation of images ultimately spring. Like those Late Medieval dissidents, should we consider materials simply as inert matter? Is it false to argue that matter could be imbued with significance, divine or otherwise? Or should we assume – following our Renaissance forebears – that images are by default symbolically significant; in the Renaissance images are typically allegorical, they invariably represent other things (Eco 1986 [1959]). Are we correct to assume

that all images are representations of something? What is at stake when we tacitly assume that images are representational?

This chapter will discuss these issues. Here we will argue against the idea that art and imagery always needs to be representational, though we will argue that sometimes images resemble things and can be used to represent them. Art and imagery is not representational, but can resemble things and be used to represent them! What on earth do we mean? What is the difference between 'representation' and 'resemblance'? To explain this distinction, we will trace our steps back to some earlier discussions in this book.

At the beginning of the book we argued for an archaeological approach to art that was distinct from an art historical or anthropological approach. We noted that art historians tend to explain the artwork in causal terms; the artwork is treated as emblematic or representative of its original time, place and circumstance of production. For art historians it is shaped by its historical context or period (Kemp 2014). Anthropologists, on the other hand, prefer to think of artworks in symbolic terms (Layton 1991, 99–103). They are interested in how artworks are shaped by social relations, and the social significance that artworks may carry. Recall that Howard Morphy – one of the most influential figures in the field of anthropological art – defines art objects as things that 'are used for representational or presentational purposes' (Morphy 2007, xi). Like art history, the anthropology of art is interested in artworks in the sense that they are illustrative of the social relations that shape them: artworks represent something, they are representational.

As we have previously pointed out, one of the key problems with both these approaches is that artworks, and the materials they are composed of, play no part in the analysis. The approach of art historians and anthropologists of art is essentially hylomorphic. We discussed hylomorphism in the previous chapter. Hylomorphism is a philosophical term for the view that artists or makers simply impose forms internal to the mind upon the blank substrate of the material world. Art historians and anthropologists of art draw distinctions then between active human subjects and inert objects. The study of artworks is only of interest to them because of what they represent; artworks reflect or represent the human societies and historical contexts that shape them. It is this approach that we define here as 'representational'.

Because artworks are assumed to be representational, they are also assumed to be communicative; it is assumed that the role of art is to communicate representational meanings. Allied to the idea that art is communicative is the common assumption that art relates to the display of identity. For example, in a recent publication on the archaeology of art, Inés Domingo Sanz and her colleagues argue that the contributors to the volume aim 'to understand how artists leave marks of authorship in the work of art: through a plurality of methods used by archaeologists worldwide to interpret this information, those marks of authorship are attributable to specific times, places and identities' (Domingo Sanz et al. 2008, 17). 'Marks of authorship': this is a telling phrase that implies that the task of archaeologists is simply to distinguish the identities of past artists through their

traces. Again, this concept is representational; it assumes that the identities of past artists are simply carried by materials in a direct fashion. Materials themselves appear to play little role in this, they simply serve as a medium for authorship and identity. At the heart of these notions of representation, communication and identity lie more deep-seated questions relating to how we think about meaning, signs and semiotics. We briefly turn to this now.

We discussed semiotics (the study of signs and their meaning) in Chapter 1, and introduced the work of Claude Lévi-Strauss, Ferdinand de Saussure and Roman Jakobson. Common to the idea that artworks are representational and communicative is the idea that they can be read. The notion of 'reading' works of art derives from semiotics, iconography and linguistic theory. Such approaches to artworks treat them as something akin to text, but also something to be deciphered or decoded. We argue that this approach to art often overlooks the visual immediacy of art, and certainly overlooks the material character of artworks.

It should be obvious by now that we reject these representational assumptions precisely because they accord no role to materials. We have been at pains to discuss the role of materials in processes of making throughout this book. In doing so, we have argued that materials have an important, and often complicated, role to play in the processes that shaped past human societies. We have rejected simplistic views of makers or artists imposing themselves upon the material world. Does this mean that we reject the idea that things and images can be used to represent? No, we do not reject this idea. To explain why we will turn to our first case study: the rock art of northern Scandinavia.

Nämforsen and the hunters' rock art of Northern Scandinavia

Fennoscandia (here including Sweden, Norway and Finland) has one of the richest rock art records in the world. Researchers have typically divided the rock art of Scandinavia into two regional traditions: a southern 'agrarian' or 'maritime' art associated with pecked images of humans, boats, tools and weapons, domestic animals and agrarian scenes; and a northern 'hunter/fisher/gatherer' art associated with pecked images of humans, boats, wild animals (elk, red deer, reindeer, bear, whale, wildfowl) and scenes of hunting. The two traditions were traditionally viewed as chronologically distinct, with the northern tradition being associated with the Early Mesolithic and Early Neolithic, while the southern tradition was associated with the Bronze Age and Iron Age. This need not be the case, and the traditions overlap chronologically and geographically (Goldhahn et al. 2010, 3–6). This case study will focus on the northern tradition.

The northern tradition is characterised by several key sites situated in Sweden, Norway, Russia and Finland. These include the sites of Vingen, western Norway, Alta, Arctic Norway, Vyg and Kanozero, Arctic Russia and Värikallio, Finland. Another of these large sites is Nämforsen, Sweden. Nämforsen is situated in Jämtland, northern Sweden and consists of some 2300 rock art motifs (Figure 9.1)



Plate 1 (Figure 1.1) Image of a deer carved at Vingen, Norway. Photo Copyright: Trond Lødøen

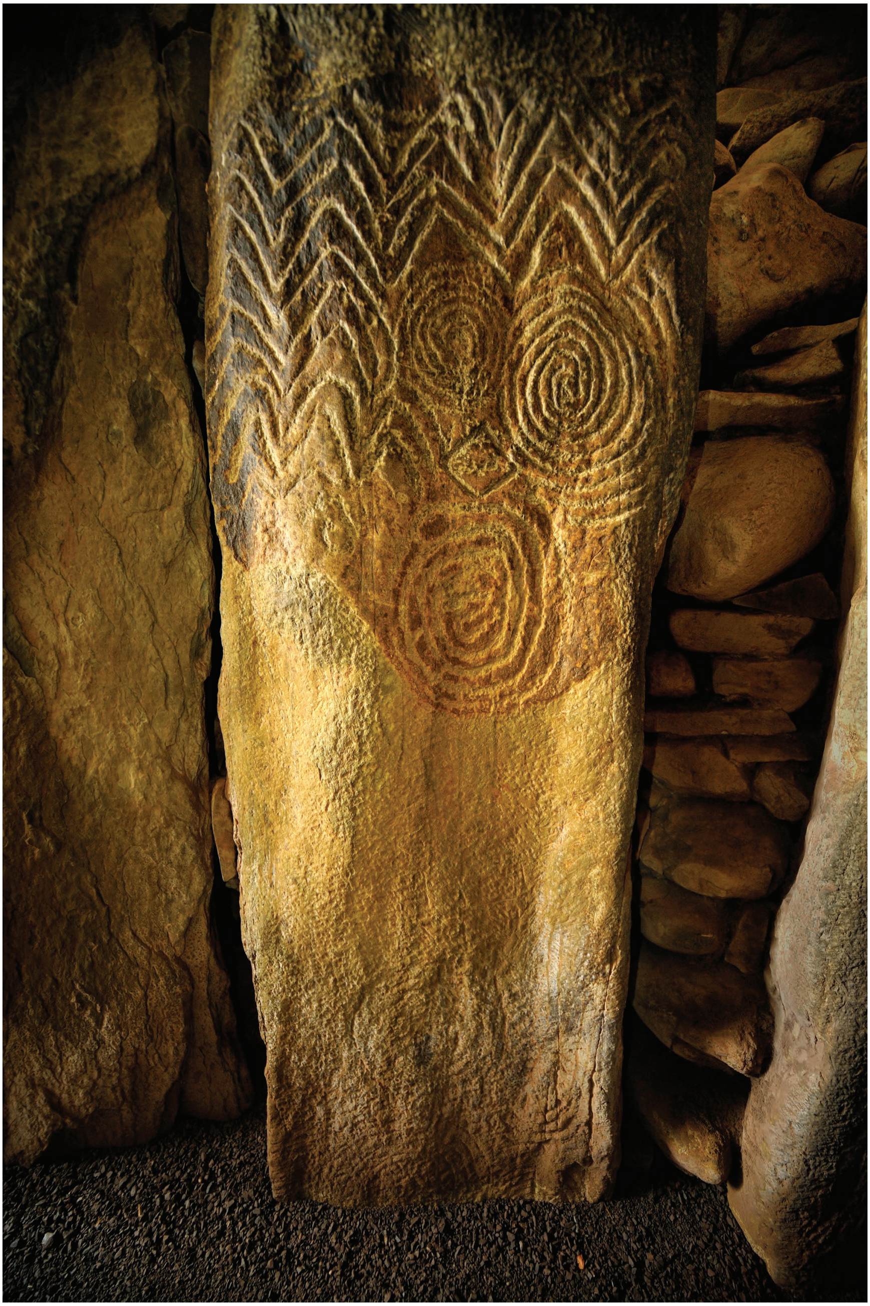


Plate 2 (Figure 1.2) Image of passage tomb art from Newgrange, Ireland. Photo Copyright: Ken Williams



Plate 3 (Figure 1.4) The Hinton St. Mary Mosaic, Dorset, England. Photo Copyright: Trustees of the British Museum



Plate 4 (Figure 1.5) Figurine from Monte Albán, Mexico. Photo Copyright: Alamy Images



Plate 5 (Figure 3.2) Image of painted handprints placed next to elk motifs at Saraakallio, Finland. Photo Copyright: Antti Lahelma



Plate 6 (Figure 5.4) Gold foil figurine, Sweden. Photo Copyright: Ing-Marie Back Danielsson



Plate 7 (Figure 6.1) A Paris Ivory – the Rattier Virgin. Photo Copyright: Victoria and Albert Museum



Plate 8 (Figure 6.2) Monochrome red Chumash pictograph, Piedra Blanca, California. Photo Copyright: David Robinson



Plate 9 (Figure 8.2) Torcs from Snettisham, Norfolk, England. Photo Copyright: Trustees of the British Museum

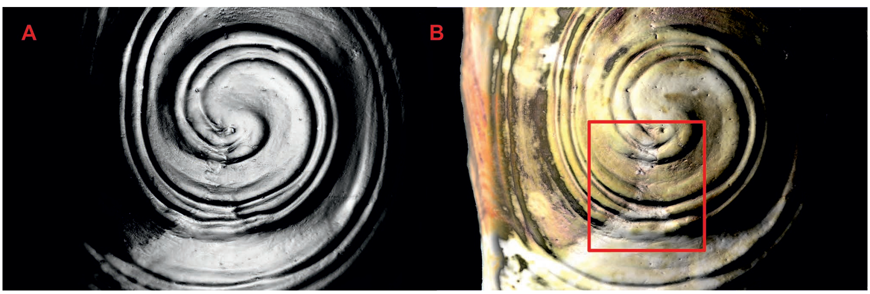


Plate 10 (Figure 10.10) Knowth macehead. RTI Image Copyright: Marta Díaz Guardamino/Andrew Meirion Jones



Figure 9.1 Rock art motifs depicting elk at Nämforsen, Sweden. Photo Copyright: Andrew Meirion Jones

carved on three immense rocks (named Laxön, Bradön and Notön) situated in the rapids of the Ångermanälven river. One of many researchers to discuss this remarkable site was Christopher Tilley (1993) and we will turn to his analysis now.

Tilley's analysis of Nämforsen is based on a formal semiotic approach. At the beginning of his study, he notes that his analysis will focus on the rules of combination of motifs (Tilley 1993, 21). Following Lévi-Strauss (1962, 16), he summarises his methodology like this:

- Define the phenomenon under study as a relation between two or more terms, real or supposed.
- Construct a table of possible permutations between these terms.
- Take this table as the general object of analysis which, at this level only, can yield necessary connections, the empirical phenomenon considered at the beginning being only one possible combination amongst others, the complete system of which must be reconstructed beforehand.

In sum, the analysis of motifs is a matter of decoding their significance through the application of a logical and systematic methodology. Added to this, Tilley also examines how motifs are structured (Tilley 1993, 22–23). He argues that they are structured in one of two ways: as syntagmatic chains or paradigmatic chains. Syntagmatic chains are those based on spatial relations: are motifs combined together

on the same rock? Paradigmatic chains are those based upon relations of similarity: do all elk motifs look the same; are all elks depicted doing the same kinds of things? We can group motifs based on similarities in appearance across rock surfaces, or group motifs because of their combination together on a single rock surface. Both methods of analysis might cross-cut each other.

Tilley examines the distribution of motifs on each of the rocks at Nämforsen, looking at their combination in different compositions. He tabulates individual motifs and looks at how they are combined with other motifs: can we observe systematic combinations of distinct motifs? Is there a difference between motifs found in groups, and those found in isolation? Some motifs are pecked in outline, while others are infilled. What are the differences in the execution of motifs, and what is the meaning of this? He argues for an underlying distinction between elks and boats. The majority of elks at Nämforsen do not have antlers. Tilley therefore argues that they are female. Elks are therefore associated with the feminine, while boats are associated with the masculine (Tilley 1993, 102–103). He notes a series of similarities between elks and boats (Tilley 1993, 103):

- Virtually all boats possess a naturalistic or simplified elk head (at the prow). A definite connection is being forged between elks and boats.
- In the few cases where elks are depicted with antlers, the antler depictions are virtually identical to those of single-line boats.
- Just as there are some cases of two-headed elks, some single-line boats possess an elk head at either end.
- Groupings of boats are depicted in exactly the same way as elks. There are herds of elks and ‘herds’ of boats.
- Both elks and boats are more frequently depicted facing right or west than left or east.

Based on these similarities, he builds up a set of oppositions between Clan A associated with the elk, with land, nature and the inside, and Clan B associated with the boat, with water, culture and the outside (Tilley 1993, 105). From this he builds up a complex system of clan associations based on different motifs (Tilley 1993, 110–111): elk (land), fish (water) and bird (sky), and considers how these might be based on different moiety systems (the units a clan is divided into based on systems of kinship and descent). Ylva Sjöstrand (2010) has added nuance to Tilley’s initial analysis. She argues that elks are a key symbol in the Stone Age of Fennoscandia, and distinguishes between depictions of elks with angled legs and those with straight legs (Sjöstrand 2010, 148). Elks with straight legs are executed in both surface and contour-pecking techniques and are connected to human figures. By contrast elks with angled legs are executed in contour-pecking technique and are connected to footprints. Arguably, these distinctions in elks may relate to ideas of mobility versus stability. Angled-legged elks are associated with footprints that themselves relate to movement, while straight-legged elks appear to

signify stasis (Sjöstrand 2010, 148). Sjöstrand (2010, 150) relates these themes of movement and stasis to wider social changes occurring at the end of the Neolithic and beginning of the Bronze Age at Nämforsen.

Tilley's, and to an extent Sjöstrand's, analyses are concerned with looking for the underlying order of rock art motifs. In that sense the motifs of elks, boats, fish, birds or whatever carved on the rocks at Nämforsen do not signify elks, boats and fish; they relate to a more significant underlying symbolic order. Pictures of elks carved on the rocks at Nämforsen need not be elks at all. In fact, early on in his book, Tilley pours scorn on the idea that an elk is an elk is an elk (Tilley 1993, 12). But what happens if we assume that these northern tradition rock art motifs are in fact pictures of elks? That is precisely the approach taken by Knut Helskog and Jan Magne Gjerde. We will examine their work now.

In a series of books and papers, Knut Helskog (1999, 2004, 2014) has examined the rock art of the northern tradition, with a focus on the site of Alta, Arctic Norway (Helskog 2014). One of Helskog's key insights is to treat the motifs depicted on rock panels in northern Scandinavia not as metaphorical symbols, but as depictions of stories:

> The individual figures, the composition of figures and the rock surface may, singly or in combination, signal some type of landscape. Furthermore, the figures and, at least at times, rock surfaces are elements in a story which in itself would signal the landscape in which it was enacted.
> (Helskog 2004, 266)

Helskog argues that, quite directly, the rock art motifs of the northern tradition are depictions of stories and events and scenes that are related to specific landscapes. If these are scenes related to particular landscapes, they are also likely to relate to particular events and times in the seasonal cycle. Scenes such as the depiction of corrals surrounding herds of reindeer, at Bergbukten IV and Kåfjord, Alta are depicting events that take place in autumn (this is the time traditionally when historical and contemporary reindeer herders in the region gathered in their herds from the surrounding landscape). Likewise, on the Kåfjord panel, there is a composition with two bears in their dens around 8m apart (Figure 9.2). The dens are connected by bear tracks. In the den to the left, the bear faces the opening of the den, as if leaving in spring, while in the den to the right the bear is facing the back as if entering in late autumn. Critically the form of the rock is a component of the composition. Again at Kåfjord, the tracks of the bear lead from its den down the rock to a basin that now fills with water; the features of the rock are part of the landscape within which these rock art motifs move and act.

These scenes suggest the movement of time, and the changing of the seasons. At Nämforsen, Helskog (2004, 277–278) notes similar patterns. Here there is an important focus on elk (*Alces alces*). Remember that the absence of antlers on elk led Christopher Tilley to argue that elks were female. For Helskog the lack

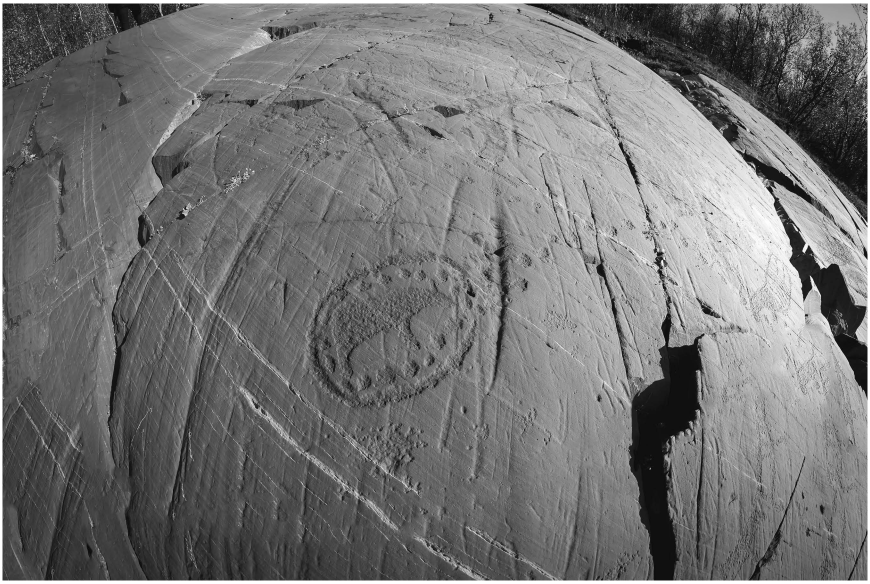


Figure 9.2 Rock art motifs of bears in their den at Kåfjord, Alta, Norway. Photo Copyright: Andrew Cochrane

of antlers on many male elk (distinguished by their distinctive beards) indicates a scene taking place in winter. The most frequent compositions are of groups of elk, which are known to herd in the winter.

Jan Magne Gjerde (2010) has extended Helskog's analysis to the study of a suite of rock art sites across northern Scandinavia and Russia. Gjerde (2010, 150–163) notes an important relationship between what he calls 'macrolandscapes' (the general environmental context of carving sites) and 'microlandscapes' (the landscapes depicted in carving sites). The macrolandscape of Nämforsen is extensive and includes several other rock carvings and paintings, mainly depicting elks, upstream at Bastuloken and Högberget. These sites are part of the same river catchment system as Nämforsen, and are also associated with distinctive elk hunting pits. The microlandscape carved on the rocks of Nämforsen mirrors this river system. Gjerde (2010, 375) shows that these microlandscapes depict figures located in relation to a miniature landscape, complete with river-like channels cutting through the rock surface embellished with boat images. Nämforsen is a component of an extensive landscape associated with the hunting of elk; the events relating to elk hunting are depicted on the rocks at Nämforsen.

What differs then between Tilley and Sjöstrand's analysis and that of Helskog and Gjerde? Notably Tilley and Sjöstrand's impetus is to decode these rock art motifs. Rock art motifs are representational in that they signify an underlying

symbolic code. By contrast, both Helskog and Gjerde agree that rock art motifs represent something specific. Rock art motifs represent the animals that they depict, they also represent events taking place at certain times of year, and – for Gjerde – they represent the landscapes within which the rock art motifs are carved. In each of these cases, the rock art motifs represent things because they closely resemble those things. We describe this kind of relationship as iconical.

The differences between Tilley and Sjöstrand and Helskog and Gjerde is really a difference between two different approaches to semiotics: the semiotics of Ferdinand de Saussure and the semiotics of Charles Sanders Peirce. We have briefly introduced Saussure's approach in Chapter 1, now let's looks at it in more detail (good discussions of Saussure in archaeology can be found in Hodder 1986; Preucel 2010; for a discussion of Saussure in anthropology see Layton 1991, 1997). For Saussure, the sign consists of two components: a signifier and a signified. The signifier is the acoustic image of the spoken word as heard by the recipient of a message. The signified is the meaning called forth in the mind of the recipient resulting from the stimulation of the signifier. Signs are made up of three parts: the signifier, the signified and the unity of the two. The unity between the signifier and the signified is determined by cultural convention. The assignment of a signifier, such as the word 'tree' to some signified object, depends upon what a community of language users understand the term 'tree' to mean. Languages are composed of words with an arbitrary relationship to the real-world objects that they signify. The meaning of each word (or each linguistic sign) is determined by its position in a sentence, or its position in the language as a whole. This approach to language has been used to understand other sign systems, such as myth (Lévi-Strauss 1966), the structure of meals (Douglas 1975), systems of cleanliness (Douglas 1966) and fashion (Barthes 1967).

While the sign system devised by Saussure is based upon understanding arbitrary codified relationships, the sign system of Charles Sanders Peirce is based on natural relationships (see Preucel 2010 for an introduction to Peirce in archaeology and Keane 2003, Kohn 2013 for a discussion of Peirce in anthropology). At the most basic level, Peirce argued for three kinds of sign: index, icon and symbol. The symbol works much like Saussure's notion of the sign and we will not discuss it further here. More interesting are indexes and icons. Indexes are not arbitrary, rather the meaning of an index is established from a pragmatic understanding of the material world. The association between smoke and fire, or between thunder and lightning, is indexical; one is associated with the other through commonplace experience. Icons are signs whose meaning derives from their close resemblance to an actual object or event. An aeroplane on a road sign indicating the direction of the airport is an everyday example of an icon. Kohn (2013, 171) discusses how these three forms of sign – symbol, icon, index – are hierarchically nested and connected: each sign modality is embedded in the other. Beginning with icons, the most basic of signs that point to physical resemblance between forms, indices emerge as a set of hierarchical relations amongst icons, indices relate to a practical relationship between a physical entity and another phenomenon. Finally, symbols

are the product of relations among indices. Symbols are built from a complex layered interaction among indices (Kohn 2013, 52–53).

Although neither Tilley, Sjöstrand, Helskog nor Gjerde explicitly discuss it, their analysis also owes a debt to iconographic analysis. Iconographic analysis is an art historical method made famous by the art historian Erwin Panofsky (e.g. Panofsky 1972). Panofsky's aim was to elucidate the meaning content of images. To do this he argues for a threefold approach. At the most basic level, the viewer works with images that can be recognised without reference to external sources. Secondly, the viewer identifies images as components of a known story or as those with a recognisable character. Thirdly, the viewer builds on the earlier analyses to decipher the meaning of the image. Formal iconographic methods have not had a huge impact in archaeological studies of art (but they do have an impact in Classical and Roman art studies), though we can detect their influence here on Tilley, Sjöstrand, Helskog and Gjerde.

In our discussion of northern tradition rock art in Scandinavia, Tilley's analysis is clearly based upon Saussurean semiotics, and he explicitly acknowledges this (Tilley 1993, 17). Though they never discuss the semiotic system that they use, it is also clear that Helskog and Gjerde's analysis is more closely allied to Peircean semiotics: rock art motifs are icons that closely resemble the things that they signify. Furthermore, landscapes are also reflected in rock art compositions in an iconic fashion; there is a close resemblance between the landscapes depicted in the rock art and the landscapes within which the rocks are situated. Seasons are indexically portrayed in rock art scenes because of the particular activities taking place. Animals, landscapes, seasons are hierarchically nested as icons and indices because of their basis in the material and tangible. One of the advantages of Peirce's approach to meaning over Saussure's is the fact that it is not arbitrary. Instead there is quite a direct relationship to materials.

Another important distinction emerges between Tilley, Helskog and Gjerde and that relates to attentiveness. Tilley visited Nämforsen and relied for his account on the previous documentation of Gustaf Hallström (1960). Helskog and Gjerde live in the landscapes that they study. In the case of Helskog, his analysis is based on a lifetime of fieldwork in Alta. In the case of Gjerde, it is based on several years of intensive study. In both cases Helskog and Gjerde are attentive to the landscape that they live in, its wildlife and the changing seasons (Gjerde has recently completed a programme of fieldwork recording rock art sites in the snowy landscapes of winter). While Tilley's analysis is based on the abstract decoding of rock art motifs, Helskog and Gjerde's analysis is based on an attentive knowledge of the landscapes they study. In that sense, it is more closely in sympathy with the materials (animals, landscapes, etc.) from which meanings are made. We argue that approaches to meaning that attend more closely to materials are preferable, particularly meanings derived from causal links with materials. We develop this kind of approach by examining another case study: Pueblo architecture and depositional practices.

The significance of Pueblo architecture in New Mexico

Pueblos are a distinctive architectural feature of the American Southwest. Composed of adobe mudbrick and wood, Pueblo villages may have been home to several thousand individuals at one time. Some Pueblos – such as those in Chaco canyon, New Mexico – have long been abandoned. Others, such as Taos, New Mexico, have been continuously occupied for the past seven centuries. The work of Severin Fowles (2013) aims to understand the character of religion amongst the Northern Tiwa Pueblo people.

Fowles examines activities at T'aitöna Pueblo, New Mexico. His analysis of the symbolic significance of activities at T'aitöna is based upon an ecological or sympathetic principle that examines how 'every thing is caught up in the flux of every other thing' (Fowles 2013, 152). Fowles therefore argues for a relational account of symbolism looking at how symbols are related together, and how this lends them significance. For Fowles, symbols are not arbitrary, they are causally related, and they are related in complex networks of significance. Let us look at his analysis of the excavated features at T'aitöna Pueblo as an example of this approach.

His analysis is nested and begins with a discussion of Pueblo pipe technologies. Excavation at T'aitöna has produced around a hundred pipes or pipe fragments. Pipes were decorated (Figure 9.3). The earliest pipes in the region were simple tubes decorated with a single incised line. Over time pipe decoration became more elaborate. In some cases, they were textured along the shaft, turning the pipe into a stylised cob of corn. Fowles (2013, 154) notes that corn was a significant crop. In addition, the incised zig-zag motifs on the pipes referenced the Katsina spirits (a significant form of local spirit, often made material in the form of dolls) who brought rain. Here we begin to see the connectivity between pipes that produce smoke (ethnographically attested as symbolic clouds) and the idea of clouds producing the rain that nurtures the crop. These connections do not end there. The clay used to produce pipes was also significant. Pipes were made of a distinctive brown alluvial clay derived from the river bank. This is significant because the river clay used to make pipes was from the very river that irrigated the crops. To make that connection even clearer, the clay of some pipes was sprinkled with corn pollen and powdered red blossom. Pipes. Clay. Clouds. Crops. Each of these is causally and symbolically related.

Now let us look at the activities taking place in the kiva (subterranean ceremonial gathering place) at T'aitöna. Fowles (2013, 159) focuses on room 822, a D-shaped Kiva at the site (Figure 9.4). The kiva had been built with four large corner posts, an ash pit, a ventilator in the middle of the eastern wall and exterior chimney. Let us begin with the floor of the site, which on excavation was shown to have been prepared with a great many seeds of the squash plant. Like the sprinkling of pipe clay with corn pollen, the tempering of the kiva floor with squash seeds denotes a connection with crop fertility.

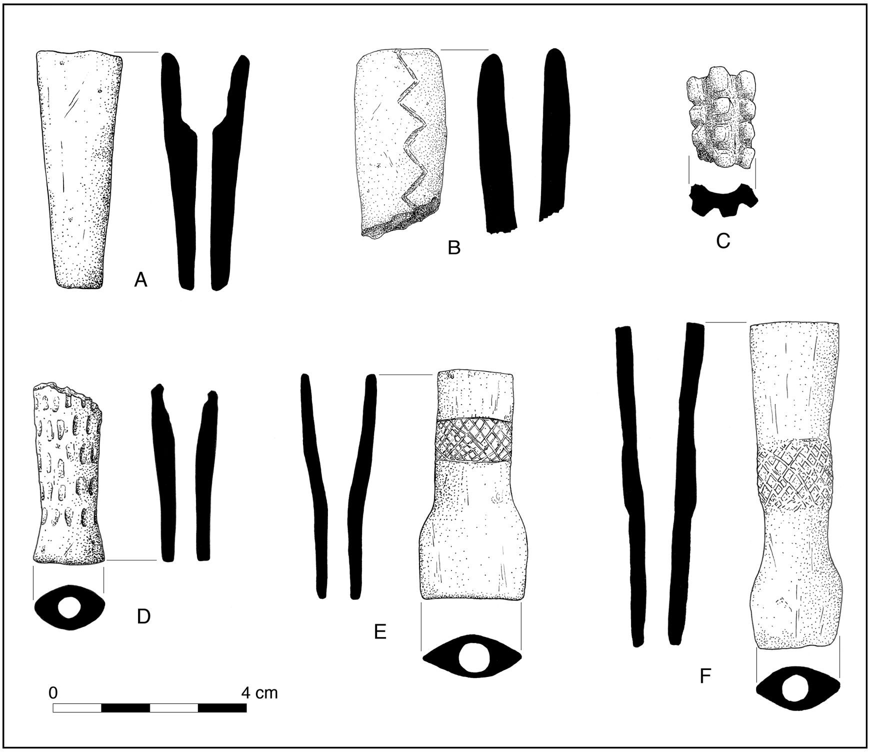


Figure 9.3 Decoration of ceramic pipe's from T'aitöna. Image Copyright: Severin Fowles

There are a series of deposits sealed beneath the eastern half of the floor. These include: fragments of a woven yucca mat or basket; burned pine boughs; an intact ceramic jar (overturned) covering corncobs and a pinecone; a pile of burned corncobs; a fibrolite axe; a portion of a digging stick; four one-hand *manos* (grinding stones); a bone awl; the articulated front forelimbs of an immature deer; the antler of a mature deer; a small mammal cranium (e.g. porcupine or beaver); a bird cranium; two bison third phalanges (possibly the remains of a prepared bison hide); a five-month-old dog with a number of curiously missing skeletal elements; a three-and-a-half-month-old dog (headless); the headless remains of a one-and-a-half-year-old human infant sheltered by two stone slabs.

Fowles (2013, 165–168) argues that this assemblage of things was deposited in the floor to accompany the infant. He notes the careful positioning of the deposits – the division of the room between east and west, associated with the rising and setting sun, life and death. He also observes that the deposits are themselves divided between north and south. To the north of the line dividing the room between the hearth and

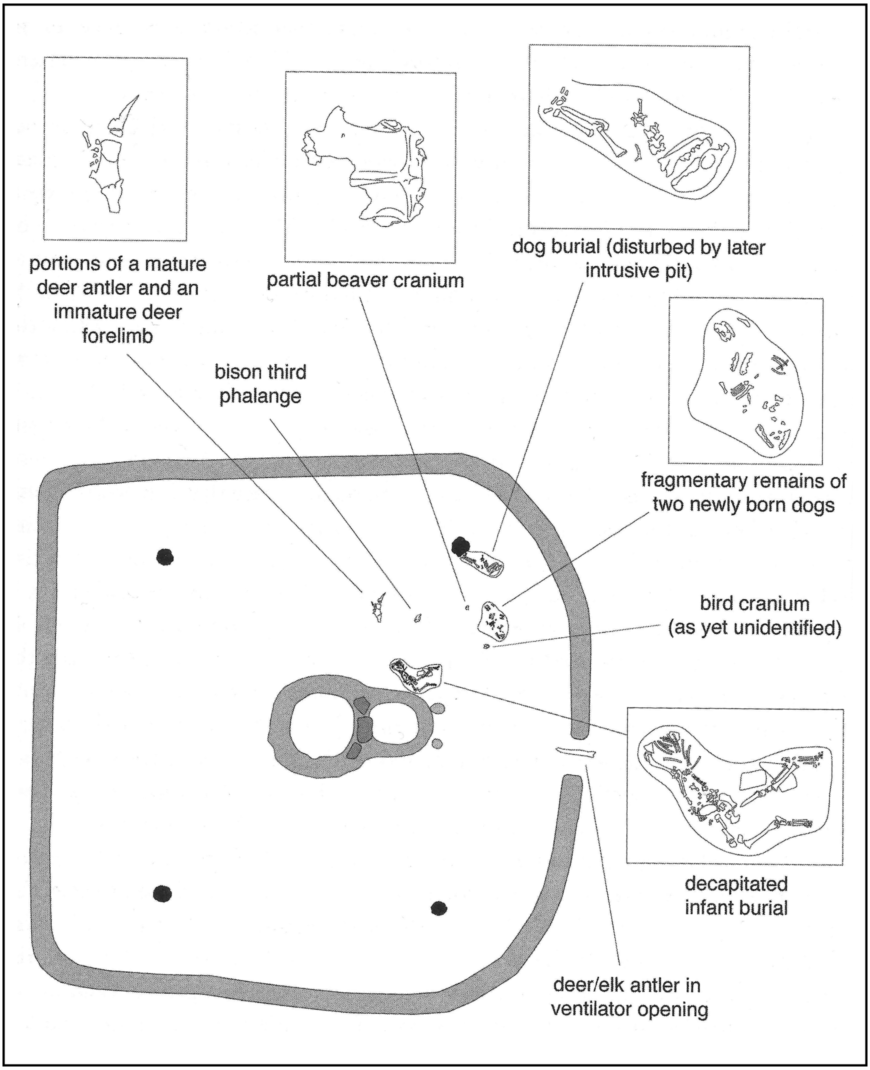


Figure 9.4 Plan of T'aitöna Pueblo, room 822, a D-shaped kiva. Image Copyright: Severin Fowles

ventilator, the deposits are associated with flesh (the infant, the dogs, and the bison hide that may have accompanied and covered the infant burial). By contrast, to the south quantities of plant materials were deposited (pine cones, corn cobs etc.) – the objects in the south-eastern quadrants were plants or objects associated with agriculture (such as the fibrolite axe). A distinction between life, renewal and death, perhaps?

The hearth in room 822 was immense and excessively deep. Room 822's hearth was constructed as a massive cylindrical pit lined with adobe extending 60cm below the floor surface. Fowles (2013, 160–161) argues that it would have been ineffective as a hearth with respect to oxygen flow and heat release. Instead the pit-like character of the hearth allowed it to connect to the ancestral spirits below (ancestral pits or *sipapu* are a common feature of kivas), while its cylindrical adobe construction was pipe-like, and like a pipe it allowed smoke to 'rise to the heavens, carrying human prayers above' (Fowles 2013, 161). Curiously, analysis of the ash in the hearth indicated the almost exclusive burning of cottonwood, very rare in the region. Why was cottonwood preferentially burnt? Cottonwood is a riverine species and – like the alluvial clays used to make kiva pipes – was selected for its symbolic association to this habitat.

Another feature was associated with the hearth: in the eastern portion of the rim of the hearth, three stones were set: a larger stone at the centre flanked by two smaller stones in a stepped arrangement. These features are often known as 'deflectors', and their stepped profile is ethnographically associated with a common icon for clouds (Fowles 2013, 162). Again, we observe a connection between the cloud-making capacities of pipes and the cloud- or smoke-making associated with the hearth.

We discuss Fowles' (2013) analysis of the artefacts and features at T'aitöna Pueblo as it offers a useful example of how we should regard symbolic representations archaeologically. How does Fowles' approach develop what we have already discussed relating to representations? From Helskog and Gjerde's analysis, discussed above, we noted the usefulness of thinking about the representation of animals iconically. Icons are causally related to the animals that they are meant to resemble. There is an empirical material relationship between rock art motif and animal. Fowles' analysis, by contrast, deploys the other key aspect of Peirce's semiotics: the index. The symbols that Fowles discusses are indexes that are also causally connected. Importantly he shows that we can consider these causal connections as being composed in an unfolding network. In Fowles' analysis the empirical causal links between materials are so strong that we wonder if 'symbolism' is the correct word to describe the association; the links are strong and often empirically connected. In a similar sense, Helskog and Gjerde's discussion of the connection between rock art depictions and the animal species they depict is likewise closely connected. In both these examples, we argue that what is commonly called 'symbolism' or 'semiotics' is in fact attentiveness, and relates to closely attending to the world. Fowles (2013, 152) describes the relationship between things as sympathetic or ecological. What is particularly important about this idea is that it focuses on the act of attending, the act of making connections. This reminds us that symbols are not self-evident. They are made.

Our next case studies look at floor mosaics in Roman Britain and Inka architecture in the Andes. In both cases we examine how significance is made.

The mosaics of Roman Britain

The Cotswolds region of southern England is home to a concentration of fourth-century AD Roman villas with focuses around the towns of Cirencester (Corinium) in present-day Gloucestershire, and Bath (Aqua Sulis) and Ilchester (Lindinis) in present-day Somerset. One of the features that marks out these villa sites as special is their mosaic floors. We focus on Sarah Scott's (2000) analysis of the mosaics in this group of villas.

Many of the mosaics in the Cotswold region depict Orpheus (a legendary Greek musician and poet famed for his music's ability to charm animals and other living things). Orpheus is often situated at the centre of the mosaic, with images of plant life and animals concentrically arranged around him (Figure 9.5). Abstract designs, such as the saltire, are also a significant feature of mosaics from this region. Previous authors have argued that the themes or subjects of mosaics are derived from a standard repertoire. Scott (2000, 113–130) argues that while a standard repertoire was drawn on, we also need to take account of the architectural and historical context of many villa mosaics; villas formed the centrepieces of large and productive agricultural estates. Based on comparisons with villas in other parts of the Roman Empire – such as the Piazza Armerina – she argues that villa mosaics were modes of competitive display amongst elites (Scott 2000, 130).

In a sense this analysis of villa mosaics seems like a foregone conclusion: mosaics are placed in elite villa residences. The notion of mosaics as one element of competitive elite displays therefore seems justifiable. However, this interpretation also appears to treat mosaics simply as media by which elite displays were



Figure 9.5 Orpheus mosaic from Withington, Oxfordshire, England. Image by Hannah Sackett, redrawn from original in Scott 2000

carried out; in that sense Scott's argument is representational. Might there be more complexity to mosaics?

One of the key points that scholars of late Roman Britain have focused on are the regional schools of craftspeople associated with mosaics. Scholars have identified two groups of mosaicists working in the region near to Corinium, one specialising in Orpheus designs, and the other in more geometric designs like the saltire (Scott 2000, 41). Based on detailed analysis of the designs, Cookson (1984) argues for three distinct types of mosaic pattern: simple geometric pattern; concentric circular designs; a saltire or interlaced designs. The last of these suggest close affinity and probably a group of craftspeople working closely together. Many of the concentric and geometric designs also reveal a close level of affinity with each other, likewise suggestive of groups of mosaicists working together.

Were Roman mosaics designed or was there a more fluid or organic character to their layout? We know that certain classical and mythological themes were drawn on with a wide currency throughout the Empire. However, it seems likely that the layout of mosaics was a matter of debate between householder and mosaicists. The act of laying mosaics was also complex. David Neal (1981, 20) provides a useful discussion of this:

> The most common foundations are a bedding of mortared rubble or a bed of *opus signinum* (a compound of crushed tile and lime mortar). Apart from being very strong, the latter provided a damp-resistant membrane on which a thin levelling skin of mortar could be spread . . . Guide lines for the design of the mosaic were either scored into the damp levelling skin or painted . . . Laying a mosaic probably began in the centre of the room and worked outwards towards the borders. It would have taken many days to complete, for only a small area was worked at any one time. A fine lime-mortar bedding for the tesserae was spread over the guide lines: once the tesserae had been placed in position, they were tapped and levelled by the use of a hand weight . . . Finally the floor would have been grouted with fine crushed tile mortar, providing a water-resistant surface, and then smoothed and polished with abrasive stones.

Importantly, he notes that there is no evidence that mosaics with similar schemes came in standard sizes, and therefore the layout must have varied with each mosaic (Neal 1981, 21). Mosaics were frequently unsuited to the shape of the room. Make up panels converting squares into rectangles, or wide-plan tesselated borders were often required. A good example of this would be the hexagonal mosaic at Keynsham, Somerset placed in a hexagonal room: the mosaic was obviously designed to suit the architecture (Neal 1981, 21). For mosaics with complex geometry, it is likely that two drawings were necessary. One which gave a finished impression of the general scheme shown to prospective clients. The other was a plan, used solely by the mosaicists, illustrating the guide lines or 'nets' (patterns or designs) required to set out particular patterns. The laying of mosaics was

a complex process of working with the exigencies of plans, clients, mosaicists, architecture and the properties of the tesserae themselves.

In some cases, it is obvious that a degree of experimentation, on-the-job training and make-do occurred. In fact, the origins of mosaics are the result of an experimental mixing of techniques from North Africa and the eastern and central Mediterranean (Wooton 2016, 62). Will Wooton (2016, 77) notes that mosaics are the result of a complex interplay between local traditions and traditions that cross the Roman Empire. Mosaics may have been produced by mosaicists brought in from elsewhere in the Empire to do the work, or they might have been done by locals imitating these new arts. In fact, documentary evidence from other parts of the Roman Empire attests to cooperation between Italian and Gaulish mosaicists.

We also observe this experimentation, training and material make-do at the local level. Scott (2000, 42) remarks of the mosaic at Woodchester, Gloucestershire that there was a distinction in the execution of the Orpheus design furthest from the entrance. Those parts of the design nearest the entrance are more technically accomplished than those further from the entrance. This may be, as she suggests, due to varying degrees of competence amongst teams of mosaicists. Equally it may be that mosaicists were attempting to achieve a sense of a sharper foreground and receding background in the design. Either way, the mosaic was evidently meant to harmonise with the architecture of the room and the paths of movement and perception of its inhabitants.

Overall, we gain a sense from scholars of Roman mosaics of a quite simple process in which the materials used to make mosaics (in particular the tesserae) were deployed in a quite direct fashion to represent either geometric designs or figures from Roman mythology. Our next case study throws these ideas into question.

Inka architecture at Saqsaywaman, Peru

On the edges of the Inka capital of Cuzco lies the citadel of Saqsaywaman. The site is famed for its immense megalithic architecture (Figure 9.6). Carolyn Dean (2014) provides an account of the character of this architecture. One of the aspects that struck the Spanish colonials when they first encountered Inkan architecture was both its immensity and its tessellated nature: the blocks that comprised many Inka high-status sites were produced of blocks of stone that were not bonded together with cements or mortars, but were drystone buildings fitted carefully together.

The distinctions between Spanish and Inkan architecture went far beyond the techniques of building (Dean 2014, 180). There were substantial differences in the conception of stone. For the Spanish, stone was a prestigious building material that required craft specialisation and labour to work. For the Inka, stone was sentient: the Inka revered, fed, clothed and conversed with certain rocks they regarded as potentially animate. Rocks were co-dependent entities that the Inka shared their world with. Rocks and stones had the ability to transform, as seen in stories of *puruawqa*. *Puruawqa* are stones that could transform into warriors. The *puruawqa* promised to aid the Inka in times of war whenever they were

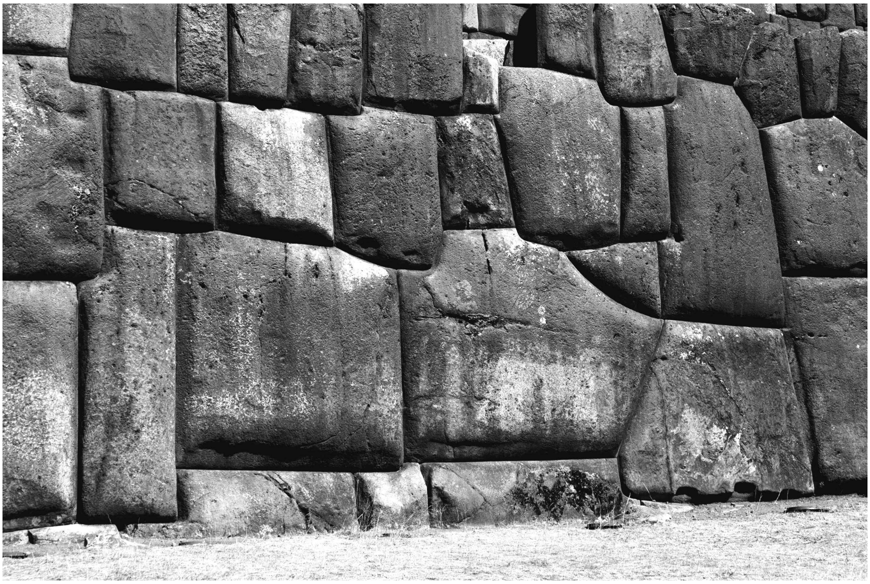


Figure 9.6 Inkan megalithic architecture at Saqsaywaman, Peru. Photo Copyright: Alamy Images

needed (Dean 2014, 181). The number of offerings made to these petrified warriors was great, and the *puruawqa* were acknowledged whenever the ruler went to or returned from war (Dean 2014, 181).

Other accounts of rocks talk about their recalcitrant or difficult natures, and the difficulties involved in transporting and shifting them for use in building projects. Stories about these rocks were known as 'tired stone stories'. Accounts from 1553 to 1653 talk of a giant stone that was quarried and transported a great distance for use in a building project. During the journey, the weary rock refused to move any further and began to shed tears of blood (Dean 2014, 181). Accounts say that this stone was destined for the citadel of Saqsaywaman.

The complex of Saqsaywaman was built by workers summoned from across the Inka Empire. As Dean (2014, 182) notes, at one level the building of Saqsaywaman manifested the extensive resources of the state, and its ability to mobilise labour. Accounts – such as those talking of recalcitrant rocks – induce awe and draw attention to the labour of moving all kinds of stone.

Three kinds of stone architecture have been identified by archaeologist Susan Niles (1987): fine high-prestige masonry, unworked fieldstone masonry and intermediate masonry. Although the high-prestige masonry used natural rocks, like the fieldstone masonry, what marked it out was the technique known as 'nibbling'. Nibbling describes a process of carefully hammering and shaping rocks for building purposes:

> While initial strokes took large bites from the stone gobbling its excesses, final work persistently nibbled away at the block to achieve the desired result. Blocks were nibbled at the site of construction until they fitted precisely on top of, and next to, their nibbled peers.
>
> (Dean 2014, 183–184)

Because traces of the hammerstones on rocks recall the work of production, the nibble marks are evidential, bearing witness to the working of the stone (Dean 2014, 184). The process of making is significant here. In fact, the process of nibbling explains the lack of adornment on much Inka architecture. This is because adornment would draw attention away from the joins and pecked surfaces. Dean (2014, 186) also argues that this process of fitting made evident in the working of stone was a metaphor for the Inka social order in which each individual fitted, but not all fits were equal.

We have discussed two types of tessellated architecture: Roman mosaics and Inkan megalithic wall-building. Archaeologists have offered two strikingly different accounts of these architectural techniques, each of which evinces different approaches to matter. In the Roman case study, mosaics were produced of individual small tiles or tesserae. The laying of these tesserae involved complex decisions and a high degree of skill and craftsmanship (Wooton 2016). Tesserae are arranged in schemes that depict mythological heroes, such as Orpheus, though the tesserae themselves appear to play little part in conveying the meaning and significance of what they depict. They simply signify an elite building material and technique allowing people to 'compete in the production of luxurious and meaningful interior decoration' (Wooton 2016, 62). The building blocks of Inka megalithic architecture are also elite constructions. The building blocks themselves are not patterned or used to convey imagery like Roman tesserae. Instead the working of the blocks themselves through the process of 'nibbling' conveys meaning: it is evidence of a careful process of fitting. In the Roman case the building materials are presented as passive and are simply used as a substrate to convey meaning; though it is acknowledged that materials did not always behave themselves. Experimentation and make-do were necessary aspects of the process of laying a mosaic pavement. In the Inka case, the materials are not inert: they are sentient and often recalcitrant. Meaning is conveyed by materials, but it is read from how the materials are worked; what they will allow the craftsperson to achieve. The significance of the blocks used in Inka architecture derives from the attentiveness and care afforded to them.

Meaning and mattering

We began this chapter by drawing attention to the problem of representation and interpretation. We traced these discussions through Antique, Late Medieval and Post-Medieval periods to the mimetic theory of art formulated by Plato.

To discuss how we might think differently about meaning and its relationship to matter, we have looked at a variety of case studies: Scandinavian rock art; Pueblo

architecture and material culture; Roman mosaics; Inka architecture. What have we learnt?

We have discovered that the analysis of symbolism in art is a major topic of enquiry. Sometimes scholars discussing symbolism ignore matter in their analyses; this is the case for the analysis of Roman mosaics. It is also partly the case for Chris Tilley's analysis of the Nämforsen rock art site. In both these cases, the images – whether of Orpheus made from Roman tesserae, or elk and boats carved on rocks in Sweden – somehow seem to stand apart from the material out of which they are formed.

In other cases, the peculiar shape, form and configuration of matter is incorporated into symbolic analyses. We noted this particularly strongly with Knut Helskog and Jan Magne Gjerde's analysis of northern Scandinavian rock art: the shape and form of the rock was an important component of the scene depicted. Likewise, the motifs depicted were based on the close observation of the form and behaviour of animals. Carolyn Dean also drew attention to the way in which the architects and labourers of the Inka Empire paid close attention to the peculiarities of the rocks they used to build their megalithic architecture. In addition, Severin Fowles brought to our attention not only the way in which the properties of materials were drawn on symbolically, but how these properties were connected in a sympathetic or ecological network of significance.

We discussed the two different approaches to semiotics and symbolism established by scholars Ferdinand de Saussure and Charles Sanders Peirce. Saussure's approach is more generally associated with an abstract analysis, with approaches that discuss symbols in an abstracted fashion at one removed from materials. Peirce's approach, by contrast, is based on what he describes as natural symbols. In other words, it is grounded in the observation of the natural world. It is therefore a concrete method of analysis that pays close attention to the role materials play in establishing their meaning. It almost goes without saying that we believe that Peirce's approach to semiotics is preferable if we are to engage materials in analyses of meaning.

In this chapter, we have been careful to distinguish between 'representations' and 'resemblance'. We draw a sharp distinction between the fact that materials might be used in a variety of ways to represent things symbolically and the idea that meanings are imposed upon materials. We acknowledge that meaning is constructed and represented: the important thing is to understand how it is constructed and represented (Taussig 1993, xv–xvi), and by what material means.

To understand how materials are used to represent, we need to focus on intra-action. We have argued a number of times that the properties of materials emerge as the result of intra-action. We discussed this in Chapter 3 when talking about gesture. We particularly emphasised Chantal Conneller's (2011) analysis of technical actions. Conneller argues that the properties of materials are the product of intra-actions between maker, technology and material: different ways of working will emphasise different aspects of materials. The same may be true of the significance accorded to materials. Throughout this chapter, we have reiterated that

attentiveness was key to our understanding of how materials gain significance. Just as Conneller argues that particular intra-actions with materials call forth certain properties of matter, so too does close attention to materials. Attentiveness to materials likewise draws out certain significant characteristics of materials rather than others, and these properties may be woven into more complex networks of significance.

Different forms of attentiveness are possible. Recalling our earlier discussion of meaning and matter in early Christian contexts, Victor Buchli (2016, 58) discusses the two modes of seeing discussed in the early Christian period: 'seeing at' and 'seeing through'. 'Seeing at' implies looking at the surface of materials, whereas 'seeing through' is a more haptic (touch-like) and penetrative form of seeing. Buchli (2016, 58) draws analogies between these different ways of seeing and different modes of intra-action. This insight may offer greater scope (Buchli 2016, 156) as a general model for different ways in which people intra-act with materials. Intra-actions with materials involve different constellations of attentive engagement between maker, technology and material.

If this is the case, then it is possible to see how materials are woven into relational networks of significance in which each element is causally connected. As Severin Fowles (2013, 152) succinctly puts it: 'every thing is caught up in the flux of every other thing'. Materials are components then of assemblages of significance or meaning: assemblages composed of interpreters, concepts and materials. Such meaningful assemblages are based upon the properties drawn out of materials by attentive interpreters. The philosopher Manuel DeLanda (2011, 185) usefully points out that:

> the identity of an assemblages should always be conceived as the product of a historical process, the process that brought its components together for the first time as well as the process that maintains its integrity through a regular interaction among its parts.

Our meaningful assemblages are based upon the significant properties drawn from materials by attentive interpreters. We would also argue that these properties are causally and relationally connected in the fashion described by Fowles for the Pueblo cultures of the American Southwest. But these assemblages of causal and relational connections only hold together if attentive intra-action is paid to the properties of the materials from which the assemblage is composed. Shifts in attentiveness will cause the meaningful assemblage to crumble, and materials will no longer be held to have meaning. Different ways of seeing materials may alter the composition of meaningful assemblages. The significance of materials may oscillate: in some cases, as with Inka architects the properties of the materials are foregrounded. In other cases, as with Roman mosaicists, the properties of materials lie in the background and materials are simply vehicles for meaning. This oscillation occurs because meaning and materials are components of complex intersecting compositions or assemblages.

Materials always hold the potential of being understood otherwise. It is precisely these changes in attentiveness, the debates about causality and holiness, and the perceived corruption of the Church authorities, that allowed sacred relics and architecture in the late Middle Ages and Reformation to become just so many heaps of stones, and allowed the flesh and blood of Christ at the moment of Communion to become mere foodstuffs that simply stood for Christ's body (see Kumler 2014). Meaningful assemblages are in a constant state of flux; they are formed and reformed and this meaning is partially based upon how materials are attended to.

Materials have a complex and sometimes fragile relationship to meaning. If we hold that materials are a component of an assemblage of activities, also composed of interpreters and concepts, then it is clear that meanings are born of the affect produced from this intra-action (see Chapter 2 for a discussion of affect). These meaningful affects might be fleeting and uncertain or well established, depending on the character and constancy of the activities that make up the assemblage. Meanings are drawn out of, and composed from, materials. The systematic analysis of the meaning of images by semiotic or iconographic analysis offers a useful method for understanding how meanings are produced, organised and comprehended but these methods can sometimes lead to a compression or flattening of our understanding: they tend to be static and two-dimensional. However, we should always remember that meanings are made; meanings are not constant, they shift and change over time. The assemblages out of which meanings are produced might be maintained over considerable periods of time but are equally liable to fade if unattended to.

10

MATERIALS, PROCESS, IMAGE

The art of Neolithic Britain and Ireland

Andrew Cochrane and Andrew Meirion Jones

Previous chapters have discussed a variety of art practices and employed archaeological case studies as a means of exploration. In this chapter, we instead examine an extended chapter-length case study. The purpose is to highlight how several of the themes we have introduced so far relate to a detailed study of a specific tradition: the art of Neolithic Britain and Ireland. Engraved, pecked and incised imagery is a feature of open-air rock art surfaces, upstanding monuments (such as passage tombs and stone circles) as well as a variety of decorated portable works of chalk, stone, antler, bone and (in rare cases) wood. Decorated stone surfaces are also a characteristic of several Neolithic settlements in Orkney, most notably Skara Brae and the Ness of Brodgar (A. Thomas 2016).

In many respects, this art tradition is similar to the rock art and passage tomb art of Portugal, Spain and north-western France (Alves 2012; Fairén-Jiménez 2015; Robin 2010). Though the art traditions of Neolithic Britain and Ireland are as visually spectacular as their continental counterparts, they largely consist of abstract imagery. The analysis of this offers a series of challenges to archaeologists used to dealing with representational imagery and symbolic analyses. Here, we explore ways in which one can examine such mark-making, without immediate recourse to the well-worn methods associated with symbolic analysis. We examine a series of key themes including dating, materials and process.

The dating of Neolithic art traditions in Britain and Ireland

High-resolution dating techniques (e.g. Bayesian modelling), strontium isotope analysis, aDNA studies *inter alia*, are increasingly allowing us to chart specific changes and movements at different scales, e.g. lifetime, generational, settlement, environment (Bayliss and Whittle 2007; Hofmann 2015; Whittle et al. 2011). Issues of temporality are also prevalent with art. One of the fundamental questions regarding any art tradition is its chronology; when do things happen? With rock art, this is a particularly difficult problem to resolve (Whitley 2005, 53–70). While a variety of chronometric techniques have been used for rock art dating in

other parts of the world, in Britain and Ireland, excavation around rock art sites has proved to be the best method for dating sites.

The Kilmartin rock art project examined a series of sites in the Kilmartin Glen, Argyll, Scotland, the richest rock art landscape in Britain (Jones et al. 2011). Excavations took place at three sites in the region: two excavations at Torbhlaren and one at Ormaig (Figure 10.1). At each site, excavations were positioned around the rock art site, as well as in the fissures and cracks on the decorated rock surface. The purpose of the excavations was twofold: to understand the kinds of activities taking place around rock art sites, and to understand its dating. The excavations produced large quantities of quartz debris both on the rock surface and around the edges of the rock art sites. Lithic analysis demonstrated that this debris included several hammerstones, while the remainder was produced when quartz hammerstones shattered during rock art production (Lamdin-Whymark 2011). This evidence for rock art creation was associated with two sets of radiocarbon dates: Middle Neolithic dates of 2920–2860 cal. BC from the rock surface, and Late Neolithic dates of 2580–2340 cal. BC from a burnt circular post-hole structure associated with activities on the eastern edge of one rock art site (Jones et al. 2011). A variety of other dates were also produced suggesting that rock art production also took place in the Late Bronze Age, 1320–1110 cal. BC (Jones et al. 2011), while other dates in the Medieval period indicate continued activity at the rock art sites, though not associated with rock art production.

The date of British and Irish rock art has long been disputed: does it originate in the Neolithic period and is later reworked in the Bronze Age; or does it solely belong to the Bronze Age (Bradley 1997; O'Connor 2003; Evans and Dowson 2004)? Based on fieldwork in the Kilmartin region, the first dates firmly associated with rock art production activities were in the Neolithic period. At the other end of Britain, further Neolithic dates for rock art sites have also been produced from the site of Hendraburnick Quoit, Cornwall (Jones and Lawson-Jones 2014). Added to these are the dates obtained from Hunterheugh Crag rock art site, Northumberland, which also indicate activity in the Neolithic (Waddington et al. 2005), while a series of excavations around rock art sites at Ben Lawers, Strath Tay, Scotland (Bradley et al. 2012) produced fragments of pitchstone associated with activities at rock art site 1 (Bradley et al. 2012, 37). Pitchstone is a volcanic glass peculiar to Scotland known to be worked from the Mesolithic to the Neolithic (Ballin 2009).

These series of excavations around rock art sites in Britain have established a Neolithic date. Because of this we can now feasibly begin to compare the motifs associated with rock art sites with those of passage tombs. The Neolithic date of passage tombs is not subject to debate. Recent Bayesian analysis of the radiocarbon dates for a suite of passage tombs across Ireland indicate that they were first constructed around 3775–3520 cal. BC at 95.4 per cent probability (Bergh and Hensey 2013, 355), with the end of their use around 3090–2905 cal. BC (95 per cent probability) or 3025–2935 cal. BC (51 per cent probability) (cf. O'Sullivan 2005; Cooney et al. 2011; Bayliss and O'Sullivan 2013; Sheridan and Cooney 2014).

Likewise, the dates of portable decorated artefacts, are not disputed. Although the well-known carved stone balls of north-east Scotland are poorly contextualised (many are stray finds derived from ploughsoil contexts), several are known from Late Neolithic settlements in Orkney and the Hebrides. Meanwhile, most other portable decorated artefacts are from stratified contexts from a variety of sites including flint mines, long barrows, causewayed enclosures, henges, pits and settlements. Decorative traditions span the Neolithic sequence in Britain and Ireland, with notably early material from the flint mines of Sussex on the south coast of England, dating to c.4050–3900 cal. BC (cf. Whittle et al. 2011; Barber et al. 1999; Russell 2000; Thomas 2013), and a further series of decorated artefacts of chalk from the causewayed enclosures of southern England, dating to between the thirty-seventh to thirty-sixth centuries cal. BC (Whittle et al. 2011). These sites are early components of a decorative tradition that flowered during the Middle Neolithic (c.3600–2900 cal. BC) with the appearance of more complex motifs, such as spirals, in a series of locations across Britain and Ireland. This horizon of activity is especially associated with Irish passage tomb art and intersects with the complex of decorated artefacts associated with Orcadian settlements, including carved stone balls and figurines. This is followed by another Later Neolithic (c.2900–2500 cal. BC) tradition associated with the decoration of chalk plaques in southern England, and stone plaques in the Irish Sea region. Both the Orcadian settlements and the later tradition of decoration in southern England and the Irish Sea region is especially associated with Grooved Ware pottery, which is decorated with comparable motifs.

We are now in a position where it is possible to compare different aspects of the art of Neolithic Britain and Ireland: portable decorated artefacts, passage tomb art and rock art. That will be an aim of this chapter.

Art and the rock surface: rock art in Britain and Ireland

One of the major characteristics of open-air rock art in Britain and Ireland is the emphasis on abstract images, including simple cup marks, cups with one or more rings, cups with tails or radial lines (or cups *and* rings with tails or radial lines), spirals and rosettes (see Figure 10.1). The major concentrations of rock art lie in the north and west of Ireland and north and west of Britain (Figure 10.2). Key rock art environments are in Northumberland and the North York Moors (northern England), Argyll (western Scotland), Galloway (southern Scotland), Counties Kerry and Cork (south-west Ireland), County Donegal (north-west Ireland) and Counties Louth and Monaghan (north-east Ireland). Rock art environments are, however, widely dispersed through Britain, with recent fieldwork noting significant concentrations of rock art in the Isle of Man (situated in the centre of the Irish Sea), Cumbria (north-west England) and Cornwall (south-west England). This chapter will focus on a specific rock art location: the Kilmartin region, Argyll, Scotland. We will also focus on a specific theme, looking at the way in which rock art motifs relate to the rock surfaces from which they are carved.



Figure 10.1 The rock art panel at Ormaig, Scotland. Photo Copyright: Aaron Watson/ Andrew Cochrane

The Kilmartin Glen is located on the west coast of Scotland just south of Oban and northwest of Glasgow. Kilmartin is part of a dramatic landscape of valleys, mountains, peninsulas and sea lochs. The bedrock of the region is of late pre-Cambrian and Cambrian age, being made up of the Dalradian supergroup of metamorphosed sediments formed between 1200 and 500 million years ago. The character of the rocks in the region, and their surfaces, have been formed by a series of events, including the folding which gave rise to the geological formation. Many rock surfaces are deeply fissured along cleavage planes – breaks in the mineral structure of the rocks – and joints, cracks caused by the forces and pressures of folding. In addition, the rocks have been scoured by ice action from glaciers, leaving markedly deep striations on their surfaces.

It is clear from fieldwork and documentation of the rock art in the region that rock art motifs were not randomly positioned on rock surfaces, but appeared to respond to the character of the geology. Motifs appeared to respond to the cleavage planes or joints, the cracks and fissures, of the rock surface. Motifs also appeared to relate to quartz veins. At the major site of Achnabreck, certain motifs, such as cup marks, were positioned in dynamic relationships with naturally occurring bowls or cups on the rock. At the same site, the tails of motifs corresponded with the contours and undulations in the rock surface. At several sites in the region, the tails of motifs often conjoined motifs with the cracks and fissures of the rock surface, creating a visual dynamic between carved motifs and the rock.

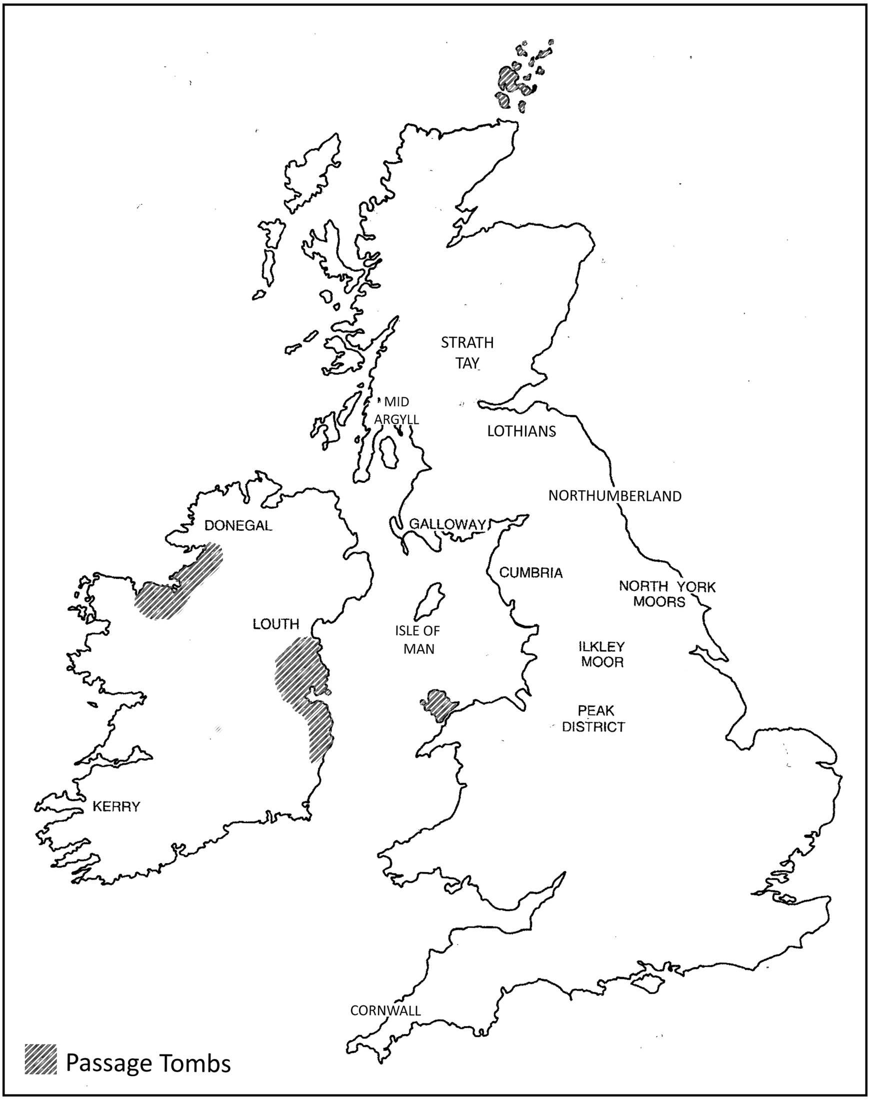


Figure 10.2 Map showing key rock art and passage tomb locations in Britain and Ireland. Image by Hannah Sackett after Bradley 1997

Categories of motifs were carved on rock surfaces with particular characteristics: complex motifs such as spirals and rosettes were carved on rocks with a dense criss-cross network of cleavage planes and joints; multiple ring motifs were carved on surfaces with large rectangular cleavage planes and joints; and cup-and-ring marks or cup-and-tail motifs were carved on surfaces with smaller

rectangular or lozenge-shaped cleavage planes and joints (for further details see Jones et al. 2011, 12–35). This attentiveness to the qualities of the rock surface was also evident at the three rock art sites excavated in the region: Ormaig and the two sites at Torbhlaren.

At Tiger Rock, Torbhlaren, the shattered quartz debris of rock art production (discussed above) was collected and swept into a fissure on the rock surface; again, the character of the rock surface played an important role in the sort of activities that took place there. At both Tiger Rock and Lion Rock, Torbhlaren motifs were concentrated around the system of cleavage planes and joints on the rock surfaces. As one of the largest rock art sites in the region, the Ormaig site exemplifies many of the relationships between rock art motifs and rock surfaces that we have discussed above. The most complex rosette motifs at Ormaig were focused on a region of the rock surface with criss-cross cleavage planes and joints, while the sloping rock surface at Ormaig was carved with a series of linear motifs, parallel grooves that both mimic and cut across the glacial striations on the rock surface. This sloping surface is also fissured and cracked with a series of triangular spaces that resemble the motifs typically found in passage tomb art; a series of carved motifs – cup and ring motifs – cluster around these triangular spaces. Significantly, those parts of the Ormaig rock art panel that have no cracks, fissures, cleavage planes or joints remain uncarved (Jones et al. 2011, 204–221).

This close attention to the character of the rock surface appears to be a significant characteristic of the Kilmartin region, though it is present in other parts of Scotland (Freedman 2011). In the Kilmartin region, rock surfaces do not appear to be treated as inert materials, instead carvers appear to have been responding to the cracks, fissures and undulations of the rocks; motifs were carved in answer to the uneven and changing character of the rocks.

We will continue this examination of the relationship between imagery and materials below as we look at passage tomb art.

Art and process: the passage tomb art of Ireland

Passage tombs are found in three key locations in Britain and Ireland (see Figure 10.2): Orkney (northern Scotland), Ireland, and Anglesey (northern Wales). In each region, the architecture of passage tombs is distinctive, as is their arrangement within the landscape. In Orkney, passage tombs are located singly, whereas in Ireland, passage tombs are in distinct groups (often termed complexes or cemeteries). Four major complexes of passage tombs are found in Ireland with two groups in the east, around the Bend in the Boyne river, and at Loughcrew (positioned over three hills), both located in Co. Meath (Figure 10.3). In the west of Ireland, there are two complexes at Carrowmore and Carrowkeel, both in Co. Sligo. Carrowmore and Carrowkeel (both on hills) are inter-visible, as are Loughcrew and the Bend in the Boyne (on a clear day; Eogan 1986, 96–97; Cochrane 2012, 137).

Passage tombs consist of a large sub-circular cairn revetted by a continuous kerb of large stones; this kerb is a distinctive feature of many examples (Figure 10.4).



Figure 10.3 Map showing key locations of Irish passage tomb cemeteries. Image Copyright: Andrew Cochrane

Cairn sizes vary but are normally between 10m and 80m in diameter. The cairn covers a megalithic structure consisting of a chamber, with an aperture leading to the exterior; often via the eponymous passage (see Coffey 1912, 102; Collins and Waterman 1952, 28; Collins 1960; cf. Herity 1974, 22; Shee Twohig 1981, 204; Dronfield 1994, 75).

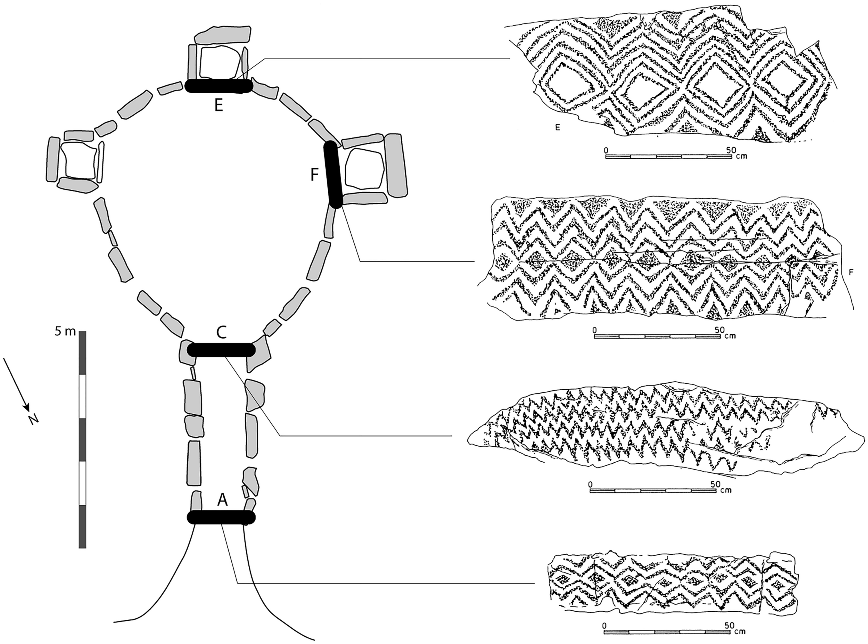


Figure 10.4 Plan of a passage tomb (Fourknocks I) showing distinctive architectural elements. Image Copyright: Guillaume Robin

Imagery carved on passage tombs is non-representational and consists of geometric motifs, occurring on the kerbstones and the interior structural stones. Passage tomb art consists of a series of circular and curvilinear motifs, including spirals, concentric rings rosettes, stars as well as angular motifs like triangles, zig-zags and grids (Figure 10.5). It shares many characteristics with the motifs at open-air rock art sites. Passage tomb art is executed using two main techniques: incision and picking (or pecking) (Eogan 1986, 148). Incision involves drawing with a pointed implement directly on the surface of the stone, while picking/pecking involves percussion with a hammerstone. Eogan (1997) and O'Sullivan (1986; 1996) distinguish at least five distinctive types of motif and technique: angular incised, angular picked, dispersed area picking, ribbon art and close area picking. Generally, picking appears to be more closely related to curvilinear motifs, while incision is more related to angular motifs (though of course we also find some angular motifs that have been carved by picking).

Pick dressing is a method that removes the surface of a stone to alter the colour, to eliminate irregularities or previous motifs (O'Kelly 1971, 109; Shee Twohig 1981, 116). The term 'pick dressing' is derived from the masonry and sculpture industries, and describes a facing made by a pointed tool (e.g. flint or quartz chisel



Figure 10.5 A variety of motifs found in Irish passage tomb art. Photo Copyright: Andrew Cochrane

or point) repeatedly hitting a stone, leaving the surface in little pits or depressions. As a mode of imagery, it is found almost exclusively in the Boyne Valley complex.

Our analysis of passage tomb art will focus on four key features: the location of superimposed images versus non-superimposed images, and the technique of their production; the location and techniques associated with re-used panels in monument construction; the significance of the material qualities of the stones on which art is made; and the relationship between building passage tombs and art.

We will focus on one of the larger passage tombs – Newgrange Site I – as well as a smaller monument – Fourknocks I; both sites are in Co. Meath.

Newgrange

The tombs at the Bend in the Boyne, Co. Meath, form the richest area of megalithic motifs in western Europe (Shee Twohig 1981; Eogan 1986; O'Sullivan 1993). The Boyne complex consists of at least three centres grouped around tombs at Knowth, Dowth and Newgrange. We will focus on Newgrange here.

Newgrange Site I (Figure 10.6), the largest passage tomb at the Newgrange site, has seen considerable analysis and discussion (C. O'Kelly 1982; Shee Twohig

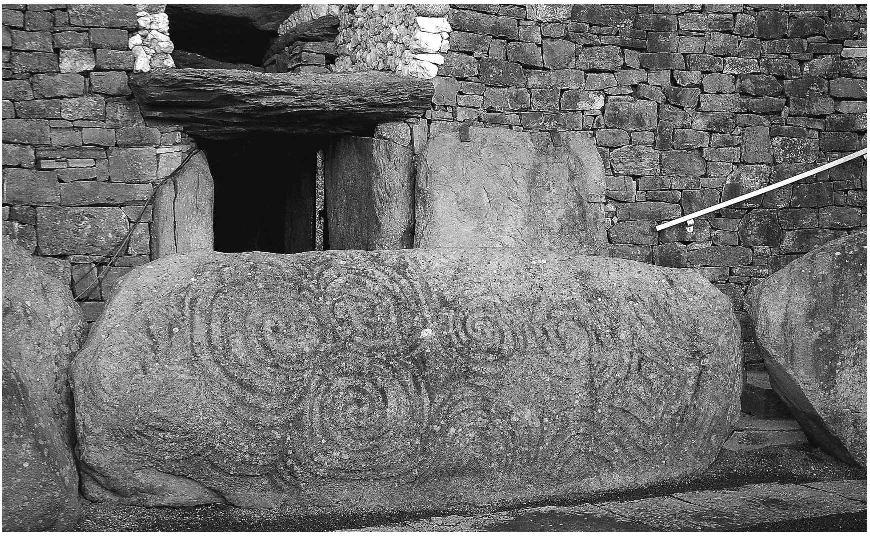


Figure 10.6 The entrance to Newgrange, Ireland showing kerbstone K1. Photo Copyright: Andrew Cochrane

1981; Stout 2002; Jones 2004; Cochrane 2006b; Hensey 2015). In many ways, it is not possible to discuss passage tomb art without a discussion of Newgrange, as the later monument of Newgrange Site I brings into focus many earlier developments (Hensey 2015).

The main tomb structure is dated from two samples of burnt soil caulking between the passage roof slabs, which produced dates of 3295–2925 cal. BC and 3265–2925 cal. BC, respectively, at one standard deviation (M. O'Kelly 1982, App. H; Grogan 1991, Table 1; Schulting 2016). These ranges are broadly comparable with Knowth Site 1. M. O'Kelly (1982, 92) has suggested that a small consolidated turf mound covering a structure may have been incorporated into the northern side of the large mound, suggesting a concern with existing foci. Though Cummings and Richards (2017, 240–241) also suggest that Newgrange, like many passage tombs, may have been built as a series of events over a considerable period of time, as attested by later dates from the outer surfaces of the mound.

The large tomb at Newgrange is one of the only two image-bearing passage tombs in Ireland in which all the main structural stones have survived intact and *in situ*; Knowth and Dowth have stones missing from the main mounds. The other intact tomb is the Mound of the Hostages at Tara, Co. Meath. The main tomb consists of a kerbed ovoid mound (c.85.3m diameter) containing a cruciform internal tomb structure. A distinguishing feature of Newgrange is the roof-box, which is located above and 2.3m back from the main entrance to the passage. The roof-box permits the access of light into the tomb, and is oriented so that the first light of the midwinter sun bathes the interior in light (M. O'Kelly 1982; Ray 1989). The

chamber is entered through a 18.5m-long passage constructed from upright stones (orthostats), which average 1.5m in height above ground level and most of which are decorated and dressed (M. O'Kelly 1982, 21). There are 22 stones on the west side of the 1m-wide passage and 21 on the east side. The roof over the passage begins from the entrance with transverse lintels, which are then corbelled, to provide greater height as it approaches the chamber (M. O'Kelly 1982, 21).

The imagery of Newgrange has inspired discussion ever since Edward Lhwyd in 1699 commented on the rude carving and 'barbarous sculpture' of some of the stones (Coffey 1912, 8). A survey demonstrated that the lozenge and zig-zag are the most common motifs at Newgrange Site 1, with the former being prominent in the tomb. The circle is the next most frequent design and occurs predominantly on the backs of kerbstones or in inconspicuous positions (M. O'Kelly 1982, 147). Spirals are the most conspicuous forms, being found on some of the most noticeably placed stones, such as K1. This is interesting as spirals occur the least, being numerically inferior to other forms (M. O'Kelly 1982, 147). The finest examples of motifs at Newgrange Site 1 are thought to have lozenge, spiral and zig-zag as their main components in varying combinations. These patterns may be composed of spiral and lozenge, as in K1; or sometimes spirals only, as in C10. Occasionally all three forms are used, as demonstrated in L19. All the motifs employed at Newgrange Site 1 are geometrical and non-representational (C. O'Kelly 1973; 1982).

Regarding access into Newgrange Site 1, there probably was always a concern with damage to the motifs once K2 and K97 were placed on either side of K1 at the tomb entrance. Shee Twohig (2000) has noted that the only way to enter the passage would have been to climb over the kerbstones, thus crossing 'over' a liminal threshold and then proceeding 'under' the carvings of the roof-box lintel. This demarcation and distinction may also have been emphasised by the colour of K1, which has red and greenish hues (Wilde 1849, 193). The passage might be thought of as comprising two sections; the lower in height being nearest the entrance under lintel RS12, which rests on R12 and L13. Beyond this point the passage roof rises into the corbelled roofed chamber. Almost exactly halfway between the entrance and the backstone of the chamber, there is a slight change in direction of the passage. This threshold between inner and outer passage is demarcated by the carvings which are found on the passage and roof from this point onwards (Shee Twohig 2000, 93).

Shee Twohig (2000) has proposed three stages of carving related to the various construction stages and sequences of the Newgrange tombs. The early phase, associated with spirals and zig-zags, is found on the orthostats. It is possible these were reused from earlier monuments. The second, and main, stage is associated with a variety of depictive, picked and incised and plain panels. Finally, the mature phase is marked by pick dressing primarily on the passage orthostats, with the completion of whole designs in plastic-style on three Site 1 kerbstones and roof-box.

In the first phase, three stones (R3, L19 and L20) were carved before being placed in the passage. We know this as the motifs were hidden below the earth

when the stones were upright. These hidden motifs in the passage are mostly spirals and circles, with a few angular motifs. Similar hidden spiral motifs were noted by Coffey (1912, 32) in the main chamber, when several stones which formed the wall-packing fell out.

In the second phase, visible motifs are carved into the passage stones, and these are mainly small and consist of lozenge/triangle panels (L15, R8, R12 and R21), zig-zag panels (L22 and R18) or small-scale outline circles and lozenges (Shee Twohig 2000, 94). There are six stones on the interior of Newgrange Site 1 with incised angular motifs (Jones 2004, 204). There are at least four episodes of superimposition in the interior of the tomb, consisting of picked angular motifs, and loose and close area picking (see Jones 2004, Fig. 21.2). Carvings from this stage are also used to mark the structural change in the passage, with some abstract and indefinable motifs on L13 and triangles on R12. These triangles are low down and are interestingly not overlaid or damaged by the later pick dressing.

The final stage consists mostly of pick dressing, and it is argued pick dressing was applied whilst the stones were *in situ* as it has not been discovered on inaccessible parts of the stone or below ground level. O'Sullivan (1986, 79) remarked that loose area picking is found on nearly all the stones in the Newgrange Site 1 passage. For instance, on the stones R12 and R21 one can see deep pick dressing produced in bands; as noted above, R12 is on the junction between the inner and outer passage, while R21 resides between the passage and the chamber (see M. O'Kelly 1982, Figs. 13 and 20).

In the chamber itself, motifs are present on 10 of the 17 orthostats, on the underside of a large roofslab and on the edges of ten roof corbels. All the cells in the chamber contain spiral motifs which dominate. For instance, the shallow-set cell 1 produces a dramatic visual impact with its backstone (C3) spiral motifs. The central spiral on this stone consists of 14 closely set turns, which make it appear larger. In all the cells and the chamber, the spirals turn anticlockwise from centre outwards (except a small spiral in cell 2 on the edge of C10).

Cell 2, at the north end of the chamber, houses one of the most famous motifs in Newgrange Site 1 on orthostat C10, the 'three-spiral figure' (C. O'Kelly 1982, 177). It is interesting to note that although the later pick-dressing on this stone slightly encroaches on the left side of the spiral, in the main it respected the spiral and left it undamaged. At the midwinter solstice, the three-spiral figure is illuminated by reflected light from the sun-beam that enters via the roof-box and fills Cell 2. One can speculate that if this cell contained a large rock of quartz, then the light effect would have been more dramatic. Cell 3 houses two basin stones and one of the most impressively carved roofstones in the passage tomb. This stone contains spiral, zig-zag and lozenge motifs. As these images continue beyond the supporting orthostats, it is believed that the slab was decorated before it was placed in position. This is an observation that seems to have been first documented in the nineteenth century by Wilde, who stated that the ornamentation must have been applied before the structure was completed, maybe being used for some anterior purpose (1849, 200; see also O'Sullivan 1989, 139). Apart from this elaborate

roof stone, cell 3 is sparsely decorated. A frieze of lozenge/triangle angular motifs is, however, carved in at eye-level round the cell (Eogan and Aboud 1990, 135). In the main central chamber, the images on the corbels are mainly angular motifs of lozenge/triangle and zig-zag, while the orthostats are predominantly lozenge/triangle, with some spirals and triangles.

Apart from the lower sections of the western kerb (kerb numbers 21 to 47), all the kerbstones (97 in total) have been exposed and documented. The kerbstones have been categorised by Shee Twohig (2000, 97):

- 30 visible surfaces of kerbstones have motifs on them, and these images include concentric circles and zig-zags, with a few instances of radials and cupmarks being present.
- Nine hidden surfaces of the kerbstones have a full range of designs on them, such as K13 and K18, which both have a surface area of c.4m² that is completely covered. The predominant designs are concentric circles and circles with a central dot. Four stones have angular designs and it is estimated from their fresh appearance that they were not exposed for any length of time before being placed in the passage tomb. The hidden picked designs are also well preserved.
- Three kerbstones (K1, K52 and K67) are distinct in that they demonstrate plastic style designs (O'Sullivan 1986). The famous K1 is positioned at the front of the entrance, whilst K52 is diametrically opposite it at the back of the monument. It is argued both stones were carved *in situ* (Shee Twohig 1973, 169). The motifs are predominantly spirals and lozenges. O'Sullivan (1986, 79) argues that K1, K52 and K67 were enhanced with secondary picking. On K67, there is depictive engraving underlying the large spirals.

One of the first things that strikes us when looking at the passage tomb art at Newgrange is the distinction between the art executed on the exterior kerbstones of the monument, and that executed on stones in the interior of the monument. Incised angular motifs are absent from the visible surfaces of exterior kerbstones at Newgrange. Most of these kerbstones have picked angular and curvilinear motifs, and there is very little evidence for secondary reworking of these kerbstones, though O'Sullivan (1986) suggests that K1, K52 and K67 (the three most elaborate kerbstones) may have been reworked with secondary picking. It is also clear that this carving on the exterior of the monument paid close attention to the qualities of the stone. This is especially clear for kerbstone K52, where the carved motifs attended closely to the natural cracks and fissures in the surface of the stone; here the form of the stone appears to have affected the layout of the design. It is also evident for K67, K82 and R21 where pre-existing hollows or cupmarks were embellished by picking. On stones K1, K52 and K67, pick dressing is used to add dimension to the image. The addition of the dressing and the removal of the stone's outer skin produce surface tensions and false relief motifs (Shee Twohig 1973, 167; C. O'Kelly 1982, Figs. 24, 28, 29; Eogan 1986, Fig. 49).

By contrast, the interior of Newgrange differs. Here a total of six stones are decorated with incised angular motifs. Further, a great many stones exhibit evidence of superimposition, with up to four episodes of superimposition in some cases. A focus appears to be picked angular motifs and close area picking. Some parts of the tomb are almost entirely reworked; this is true of the passage where loose area picking is found on all the stones of the passage (O'Sullivan 1986, 79). In this region of the monument, close area picking is used to sculpt the form of the stone – particularly evident in stones R21 and R22 flanking the transition between passage and chamber.

Nearly all the interior orthostats at Newgrange Site 1 are pick dressed (O'Kelly 1973, 377). Almost all the cell stones and corbels are dressed, with some of the kerbstones (e.g. K1 and K52, Newgrange Site 1) also displaying this imagery (O'Kelly 1971, 108). Pick dressing is amorphous and displays a marked interest in an exploration of the stone's surface; often termed plastic imagery (O'Sullivan 1986) denoting its sculptural quality, it is generally located on the stone's face which is nearest to the passage tomb entrance (O'Sullivan 1996, 87). If indeed pick dressing was designed to just be seen, it was positioned to favour a person entering the space, rather than exiting.

There are clear differences in the reworking of the interior and exterior of Newgrange. There is a distinction in the type of motifs in the interior (more angular motifs), and the exterior (more curvilinear motifs). Combining these two observations, it follows that the curvilinear art of the exterior is mainly the result of a single episode of in situ carving, and is probably a cohesive design. However, although done in situ, O'Sullivan (1986, 79) has suggested that K1, K52 and K67 *were* enhanced with secondary picking (cf. Breuil 1934, 304; Shee Twohig 1973, 163). On K67, there is also depictive engraving underlying the large spirals. This contrasts with the interior, where motifs are executed over lengthier periods of time, and where the execution of motifs follows an ordered sequence from faintly incised motifs to boldly realised pecked motifs.

Fourknocks

From the Irish fornocht or *fuar cnuic* meaning 'exposed place' or 'cold hills', the Fourknocks I passage tomb (see Figure 10.4), Fourknocks II tomb and Fourknocks III mound/barrow are located near Naul, County Meath (Hartnett 1957, 197, 272). These sites form a complex and are located on the summit of a broad-backed ridge orientated north-east to south-west. The views from the summit are spectacular; with views to the Dublin/Wicklow Mountains to the south, Cooley and Mourne Mountains to the north, and the distant Loughcrew passage tomb complex to the north-west (Hartnett 1957, 198; Herity 1974, 39).

We will explore the personality of the Fourknocks complex (see also Robinson 2012; Cochrane 2013). Such an approach is viable at Fourknocks, because here we can witness relationships within the varied elements present (e.g. the architecture, the mound, the imagery, the cremations). The emergence of the complex was

an ongoing process, which involved working with the various elements together. We will primarily focus on Fourknocks I, as it is the only feature on the hill currently known to contain motifs.

Fourknocks I is dated to c.3000 cal. BC. The passage tomb was excavated by Hartnett (1957). It was later (re)constructed by the Office of Public Works, with a concrete covering dome, topped with turf, designed to protect the interior and simulate an earthen mound. Upon entering the passage tomb from the north-east, one soon traverses the passage and is led into a central roofed chamber (c.5.5m to 6.4m in diameter) that has three smaller chambers in a cruciform plan with lintelled roofs (Hartnett 1957, 201; Herity 1974, 39; Shee Twohig 1981, 221; see Fig. 2). There are corbel stones above the orthostats of the central area, which were originally kept in place by retentive clay; it has been proposed that the main roof space was not completely corbelled (Hartnett 1957, 201; Herity 1974, 39). Instead, it is suggested that the structure contained a framework of radial wooden rafters forming a roof, supported by a timber post (Hartnett 1957, 201). Hartnett (1957, 212) argued that if there were indeed a wooden structure, it was likely that it was conceived to be temporary and impermanent.

The flat-surfaced stones within this passage tomb are mostly decorated with distinctive angular motifs, which are often referred to as the 'Fourknocks style' (Hartnett 1957, 227), whereas curvilinear motifs are on convex surfaces (O'Sullivan 1993, 27); the qualities of stone affected the layout of motifs. The finest examples of imagery are found on the lintel stones (O'Sullivan 1993, 27). Except for Stone G, all the decorated stones are sandstone. There are only five orthostat stones decorated with motifs in Fourknocks I (L4, R2, R5, C1 and C5). Other decorated stones in the passage tomb include stones A, B, C, D, E, F and G (Hartnett 1957, 224–228; Shee Twohig 1981, 221). Rather than detail the motifs on each stone, we will briefly illustrate specific imagery, and its location in the passage tomb.

Orthostat C1 is one of the most famous stones in Fourknocks I. The front face of the stone is crossed by two long lines near the top of the stone. The top of one line turns downward at its terminal and connects with the top of a double lozenge shape. Below the apex of where the two main lines cross is positioned a wide V incision, forming another loose lozenge. Directly beneath this is a wide crescent that turns upwards at the ends. Under this are positioned several short lines and curved shapes (Shee Twohig 1981, 221).

We will briefly discuss the lintel stones, A, B, C, E and F. Stone A was rediscovered by Hartnett (1957, 224) lying face-down, situated north-west of the mound; it is now reconstructed as the lintel stone at the passage entrance. The rhomboidal-shaped stone is decorated on both of its parallel flat smooth sides. On the main surface, there are three joining motifs, comprising of circles, spirals, cupmarks, bent zig-zags, short lines and angular lines; all the composite designs are poorly executed with no effort made to smooth the edges of the lines (Hartnett 1957, 224; Shee Twohig 1981, 221). The long-axis edge of this stone is covered in imagery, comprising eight heavily picked lozenge designs flanked by double

lines of zig-zags. Hartnett (1957, 225) suggested that both sides of this stone were intended to be seen, with Stone A being originally set vertically as an orthostat near the entrance.

Stone B rests on the dry-stone corbelling above Orthostat L6. The exposed overhanging part of this stone is decorated. The imagery consists of four groupings of concentric circles sequentially positioned across the stone, with smaller circles being embedded in the angles of the connecting points. On the left portion of the stone are three parallel lines. All the main circles are linked via a continuous line that doubles itself at the left terminal. The overall design is very precise with definition enhanced by raised bands between the picked areas (Shee Twohig 1981, 222); a kind of bas-relief.

Stone C is another stone that has been moved, and is currently positioned as a lintel spanning the passage. It was discovered at the inner mouth of the entrance passage, with one edge dipped downwards into the materials that filled the passage (Hartnett 1957, 226, Plate LXVII). The imagery comprises four tightly nested horizontal bands of fairly parallel angular zig-zags. Their combination can create an experience that is unsettling – this may be because they can form dense optical patterns, which can cause the neuro-visual system to malfunction. The visual effect of these motifs might be magnified if the engraving were intra-active with flickering lights. Such illumination may have come from the fires that created the extensive spreads of charcoal, around the centre of the chamber, and in front of the western recess (Cell 3) (Hartnett 1957, 210, Plate LXV).

Stone E is the lintel over the southern recess (Cell 2), the innermost chamber facing the passage, found containing the largest amounts of material, including burnt fragments of an ornate antler pin (Hartnett 1957, 214–215). Although damaged on one end, the stone is impressively decorated in the angular ‘Fourknocks style’ (Hartnett 1957, 227). The imagery is formed of four large picked double lozenges, flanked above by five rows of parallel zigzags, and two below. Inserted into these zigzags are picked triangular shapes; the central lozenge designs are solid, with the surrounding ones being formed by false relief bands (Hartnett 1957, 227; Shee Twohig 1981, 222).

Similar in detail is Stone F, the lintel capstone of the western recess (Cell 3), on the right-hand side as you enter the chamber; it is the largest of the three cells. The imagery comprises ten solidly picked lozenges that form a central band. Above and below the lozenges are positioned three parallel rows of angular zigzags, which have solid triangular shapes inserted into the external edges of the composition (Hartnett 1957, 227; Shee Twohig 1981, 222; see Fig. 7). Although worn from exposure to weathering (Hartnett 1957, 197–198, 227), the lines themselves have depth, and this occurrence lends them a sculptural and textural quality.

If we accept that the current locations of the lintel stones reflect their positions during the Neolithic, then the motifs collaborate closely with the architecture of the tomb. Guillaume Robin (2010, 389) terms such images threshold-motifs, occurring at significant junctions or liminal crossings (see also Sharples 1984, 116–117; Cochrane 2006a, 169). Such relationships are powerful and enhance a

feeling of movement within the tomb (Thomas 1990; 1992; Lewis-Williams and Dowson 1993; Cochrane 2012). Interestingly, the easternmost chamber (Cell 1) to the left as one enters has no decorated lintel and contains the lowest comparable quantities of cremated bone and artefacts.

Building and imaging

We have discussed two different passage tombs. At Newgrange, the wealth of evidence and scale of excavation allows us to identify the complex sequences of reworking involved in making passage tomb art, and the clear distinctions between the exterior and interior art. In the much smaller site at Fourknocks, we detect less evidence of reworking. Here however it is possible to look in detail at how the passage tomb art works in relation to the architecture of the monument.

In both cases, passage tomb art was integral to the architecture of the tomb (Cochrane 2006a, 254). Contrary to Herity's arguments, the motifs were not a 'by-product' (1974, 107) or surplus extra. Robin's (2010; 2012) recent work demonstrates that passage tomb art and passage tomb construction are closely interwoven. Robin shows that there is a logic to the layout and construction of passage tombs, which are constructed concentrically outwards from the core inner chambers with a gradual extension of the passage over the course of building. Art is carved at significant junctures as the passage tomb is being constructed; often at the thresholds of passage and chamber or at key junctures along the passage. Art therefore collaborates with points of construction where chamber joins passage or where passage joins passage extension.

Curiously, archaeological methods of documentation and publication tend to obscure the relationship between building and imagery. Several authors (Jones 2004, 202; see also O'Sullivan 1986; Shee Twohig 1996) have argued that many archaeological studies dislocate panels and motifs from their original contexts and present them in isolation, in two-dimensional form, predominantly in black and white line drawing on paper – a practice that privileges the static form of the motifs over more fluid processes (see Jones 2004). Such conventions create a situation in which the spectator – studying motifs in a corpus (e.g. Shee Twohig 1981) – is under the illusion that the image is a realistic representation of the original design, and is also given an observer-imposed selection of acceptable images (O'Sullivan 1986, 71). The presentation of motifs in this way can also facilitate the selective representation of panels to reinforce a point (Shee Twohig 2000, 91). These methods of documentation and publication create a false sense of passage tomb motifs, encouraging the modern viewer to see them as complete compositions. In fact, these images did not always appear as one exhaustive display; there were episodes and sequences, be it by substitution or replacement of existing motifs by imposed motifs (Eogan 1997; Jones 2004; Cochrane 2006b; 2009). Although carved into stone, passage tomb images are by no means static, or permanent. Their significance derives as much from the acts of making, as from their viewing and reception.

Recent work has indicated that there were rhythms and temporalities within the construction of many of the tombs. For instance, the excavation of the large mound at Knowth Site 1 detailed two successive phases of tomb building, termed Tombs 1B and 1C (Cleary and Eogan in press). Stones from an unknown source termed Tomb 1A were placed in Tomb 1B. Construction of the mound commenced with a stone cairn that covered the west and east chambers and their passages (Tomb 1B). This was enhanced by extensions to both passages and enlargements to the mound (Cleary and Eogan in press). As with the images, mounds are not passive indexes, and they were not merely protective covers for the tombs (Robin 2010, 373–374). The tomb architecture, kerbs, ditches, enclosures, images, the artefacts and cremated bone within, and varied layers of mound material (Cummings and Richards 2017), were components of networks of performance. Although the mounds can often appear less than symmetrical, they are not asymmetrical. There are generally no overarching divisions in the predominance of right over left (Herity 1974, 123), as is seen in the layout of the passage tombs (Robin 2010, 400). The mounds can be composed of varied deposits including: yellow clay, shingle, sandy soils, cairn material, gravel, shale, stone enclosures/features, and turf layers (Hartnett 1957; 1971; Robin 2010; Cleary and Eogan in press). It appears that the construction of the mounds was not random; some elements may have been incorporated for their abilities to stem water percolation (M. O'Kelly 1982, 22; Robin 2010, 383), while others for their smell, texture and visual impact (e.g. the yellow clay). Why would people invest time and effort into developing a sequence within a mound that cannot be seen? One answer might be that it was the performance of creating the mound that was important. It was the acts of making and intra-acting with different things that brought forth affects.

Our discussion of passage tomb art has drawn out a series of key features: the relationship between the carving of motifs and the quality of stone; the plentiful evidence for reworking, and the close relationship between passage tomb architecture and construction and the making of art. We have argued that passage tomb art is a component of the ongoing, and unfolding journey of passage tombs. This sense of the ongoing character of working materials is also clear in the making of decorated portable artefacts. We will turn to these now.

Marking and making: the decorated portable artefacts of Neolithic Britain and Ireland

There are over 1200 decorated portable artefacts from Neolithic Britain and Ireland and a variety of different materials were decorated including chalk, stone, antler, bone and wood. These artefacts are geographically widespread, though there are concentrations of spectacularly decorated artefacts in certain key regions including the chalk artefacts associated with the flint mines, causewayed enclosures and henges of Sussex, Dorset and Wiltshire; the carved stone balls associated with Orkney and the north-east of Scotland; and the decorated artefacts associated with the passage tombs of Ireland and settlements of the Isle of Man.

As we noted above, such decorated artefacts span the entire Neolithic sequence and are associated with some of the earliest Neolithic activities as well as being an important feature of developments in the Middle and Later Neolithic.

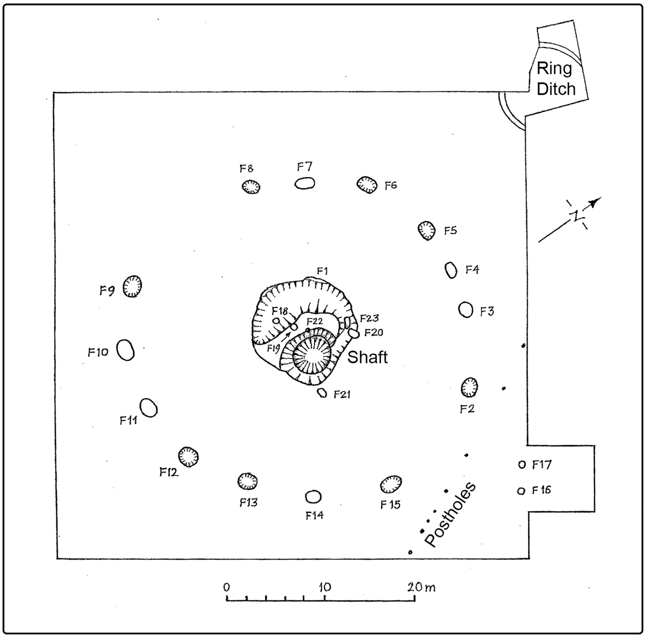
The *Making a Mark* project, has examined these artefacts using digital imaging technologies, particularly Reflectance Transformation Imaging (RTI) and structure-from-motion photogrammetry (Jones and Díaz-Guardamino forthcoming; see Chapter 11). This project was primarily interested in using these techniques to understand the sequence of working involved in making motifs: looking at the *chaîne opératoire* of making and decorating. Here, we look at some of the key decorated artefacts from the British and Irish Neolithic from some of the regions examined by the project, in particular southern England and the Irish Sea region. For each region, we offer a summary of activities, and focus on key groups of artefacts.

Southern England is dominated by artefacts of chalk. These largely consist of incised blocks and lumps of worked chalk, hollowed out cups of chalk, chalk phalli and decorated plaques of chalk. The tradition of incising plaques is associated with deposits at long barrows such as Thickthorn Down, Dorset. The tradition continues with deposits at causewayed enclosures, such as Windmill Hill, Wiltshire and Whitehawk, Sussex and into the Late Neolithic at pit sites such as Amesbury, Wiltshire, and henges such as Durrington Walls, Wiltshire. Likewise chalk phalli occur across a range of sites beginning with early sites like Thickthorn Down long barrow, and continue with deposits at Windmill Hill causewayed enclosure, with later deposits at Late Neolithic henges such as Mount Pleasant and Maumbury, Dorset. Several observations can be made from the working of this material; there is extensive evidence of reworking on many incised chalk artefacts (see also the discussion of the Folkton Drums in Chapter 11). There is clear evidence in terms of wear and context for the rapid disposal of worked artefacts; many artefacts are deposited in an incomplete state. Taken together this evidence suggests that decorated artefacts undergo revision; they are artefacts-in-process.

We illustrate this point with a detailed analysis of two artefacts: the chalk block from Monkton Up Wimborne, Dorset and the antler macehead from Garboldisham, Norfolk.

Monkton Up Wimborne

Monkton Up Wimborne, Dorset (Green 2000; French and Lewis 2007) is an unusual pit circle and shaft complex (Figure 10.7). Composed of 14 unevenly spaced pits in a circle of around 35m diameter, the pit circle enclosed a large vertically sided central pit of around 11m in diameter. A grave was cut along the northern edge of the pit. The grave contained four tightly crouched individuals, three juveniles ranging in age from c.5–10 years, and one adult female c.30–45 years (McKinley 2007, 373); the adult was radiocarbon dated to 3500–3100 cal. BC (Green 2007, 118). The grave was backfilled with chalk rubble. The demography of this grave group is suggestive of a family group, and isotopic analysis indicates a history of movement between the chalk and Mendip limestones (Budd et al. 2003).



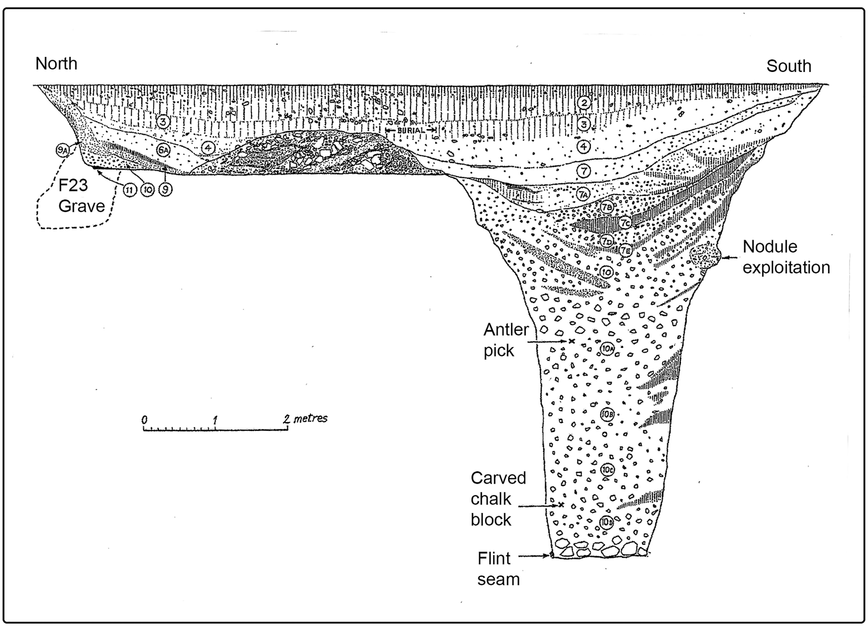


Figure 10.7 Monkton Up Wimborne site plan and section. Image by Hannah Sackett, redrawn from original in Green 2000

The most spectacular feature of the site was a 7m-deep shaft dug through the floor of the pit to the east. During the digging of the shaft some of the spoil was used to build a platform covering much of the floor area of the main pit. The base of the shaft penetrated a thin seam of flint, and c.0.7m above this floor were chalk blocks. Near the base of the shaft was a large chalk block, which was extensively decorated (Green 2007, 356). The decorated chalk block, and other blocks associated with it, were further assembled with scattered animal bones, mainly those of a butchered piglet. Several bones had been tucked into the angle between shaft base and wall, alongside these was a pecked sandstone ball.

Above these primary deposits at the base of the shaft were a series of chalk rubble layers, the result of weathering from the sides of the shaft. Within these rubble layers are several distinct deposits: in the upper 10A layer, a portion of pig skull was found with a lump of worked chalk, and part of a large flint pebble. Above this was a small red deer antler pick that had been cut and snapped. The upper fills of the shaft were composed of alternating layers of rubble. Charcoal from these upper layers produced radiocarbon dates of 3630–3590 and 3530–3360 cal. BC. A group of associated material from these upper layers includes a cow skull, an antler beam and human skull fragments. Near to this deposit was an unusual elongated chisel arrowhead. Further disarticulated human bone along with a leaf arrowhead was found in the upper layer 7a. Both the primary and secondary fills of the shaft contained sherds of Impressed/Peterborough Ware. Chalk with some evidence for working was found throughout the upper layers, along with a series of chalk fragments, with more substantial evidence for working.

The decorated chalk block from the base of the shaft is an unusual object (Figure 10.8). The block (designated C1 by Green 2007, 356) is an irregular shape: 340mm long, and with a width of 250mm. The block is 200mm thick. The underside of the block has a hole 80–90mm in diameter, with a depth of 100mm. The interior of the hole is extremely smooth and well worked. It seems possible that the hole was used to mount the block on a timber post. The block is decorated over its surface: one edge of the block has two sets of parallel grooves (distinguished by width), a further area of the block has six parallel grooves. On one edge of the stone there are two groups of nested arcs characterised by wide pecked grooves. The block was originally analysed by Richard Bradley (2007). Digital analysis has confirmed Bradley's observations while also revealing evidence for erasure and reworking on the surface of the block.

Stepping back from the details of the block, let's think about the sequence of activities associated with the block and the site. The shaft was dug through the pit, 7m deep into the chalk. Several blocks of chalk were removed from the base of the shaft (big blocks of this scale can only be found at this depth in the chalk), some were minimally dressed and worked, or incised. One of these blocks (C1) was carved, decorated and possibly raised on a post for an unknown duration of time; this must have been a relatively short duration as the base of the shaft had not weathered or silted up. Notably the block had also not weathered, despite its friable nature. The surface of the block was then pecked and flaked, removing

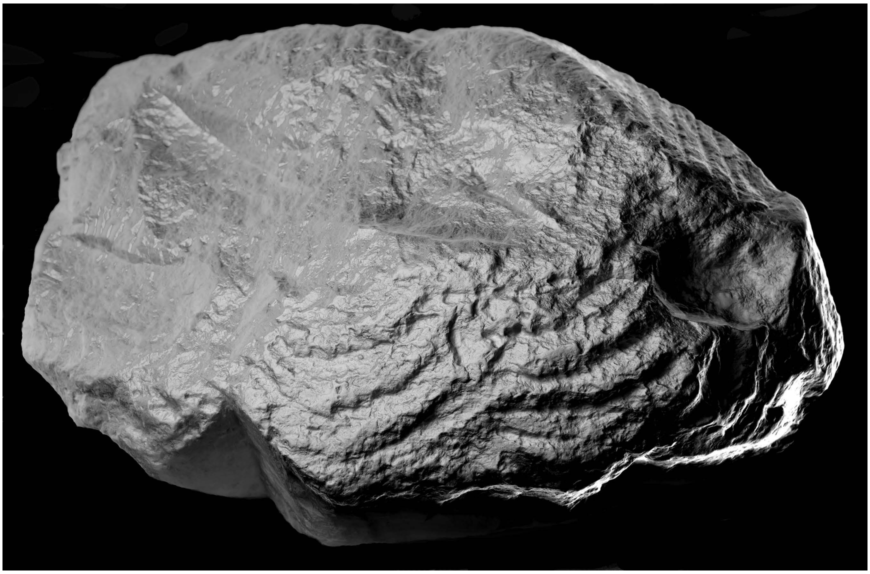


Figure 10.8 Monkton Up Wimborne chalk block. RTI Image Copyright: Marta Díaz Guardamino/Andrew Meirion Jones

some of the decoration. The block was then deposited back in the base of the shaft. A young pig was butchered and its remains positioned close to the block, along with a pecked sandstone ball; it is possible this ball may have been used for the pecking of the chalk block. We do not know the duration of this sequence of activities, though we must be looking at a relatively short duration, possibly no more than a year. The shaft was then allowed to gradually weather and fill, and as it did so small deposits of artefacts and human bone were introduced to the shaft. The whole cycle of events stratigraphically post-dates, and possibly commemorates, the mortuary deposit containing the family of people buried at the edge of the main pit.

It is evident that the carving and working of chalk was part of the current of activities associated with the digging of the shaft. Some chalk was carved extensively; other pieces received minimal carving. Notably the chalk appears to have been systematically deposited in the shaft in the order in which it was extracted – with the larger blocks of lower chalk deposited at the base, and smaller pieces of chalk deposited through the upper fills.

The Garboldisham macehead

We have focused at some length on chalk. We will now turn to another decorated material: antler.

The antler macehead from Garboldisham, Norfolk (Figure 10.9) is an iconic decorated Neolithic artefact, which has been reproduced in numerous publications. Mace heads of red deer (*Cervus elaphus*) antler are relatively common during the Neolithic (Simpson 1996), and a series of examples are deliberately deposited in riverine contexts, including the river Thames. The Garboldisham example was deposited in the river Little Ouse, along with a partially worked flint axe. A recent programme of radiocarbon dates attributes antler maceheads to the British Middle Neolithic, between 3400–2900 cal. BC (Loveday et al. 2007), and a new date for Garboldisham firmly places the macehead in this date bracket (Jones et al. 2017). The motifs carved on the macehead consist of three interconnected spirals, the individual spirals flow sinuously across the surface of the artefact. RTI analysis



Figure 10.9 Garboldisham macehead. Photo Copyright: Marta Díaz Guardamino

suggests that this carving event took place in at least two phases, as the end of one carving event is respected by a later polishing striation, which is then overlaid by the remainder of the carving. This observation is confirmed by the evidence from digital microscopy which revealed that the carved spiral motifs were executed on more than one occasion.

We have looked in detail at two artefacts, one of chalk, the other of antler. These artefacts illustrate a broader pattern: that decorated artefacts are rarely finished or completed. Decoration appears to be a component of an ongoing process of working with materials. In the case of the Monkton Up Wimborne block, it seems likely that the block was decorated before rapid deposition. The Garboldisham macehead was reworked on several occasions before deposition. Here, it is difficult to tell if the episodes of reworking were over an extensive period, or took place quickly as part of the manufacture process. To augment understanding of this process, we need to look at a group of artefacts from the Irish Sea region.

Skeuomorph and miniatures: artefacts from the Irish Sea region

The Irish Sea region is dominated by stone of a variety of different types. Decorated artefacts are mainly made of stone or occasionally bone or antler. In this region, many of the artefacts are associated with passage tombs in Ireland, and with settlements in the Isle of Man. We will look at artefacts from both contexts now.

Like the artefacts from southern England, the artefacts from this region are also revised and reworked. They are characterised by two other important characteristics: differences of scale, and skeuomorphism. In fact, the two characteristics are often related. We find a number of artefacts from Irish passage tomb contexts that appear to resemble miniature forms of larger artefacts. The most common of these are the stone beads resembling miniature maceheads (Jones 2012, 47), while the most intriguing are clay beads resembling in miniature the form of Scottish carved stone balls (Jones 2012, plate 6; Sheridan 2014).

Three artefacts from the Knowth passage tomb cemetery were examined using RTI. These include the Knowth flint macehead, discovered in the right-hand recess of the eastern chamber at Knowth 1 (Eogan 1983; 1986), the conical sandstone shaft from the western tomb, Knowth 1(Eogan 1986) and the large semi-portable decorated baetyl stone from the entrance of Knowth 12 (Eogan 1986).

The Knowth macehead

On each side of this flint macehead (Figure 10.10) there is a single spiral; on one side there is an arc that in-turns at its ends, similar to the ‘horned arc’ seen on tombs, and around the hole for the handle are sets of lines, one of which trails off to form a spiral on the side. The ends of the macehead have close-fitting lozenge motifs that are carved in relief. The macehead would originally have been mounted on a shaft. The combination of the ‘horned arc’ image and the hole for the handle

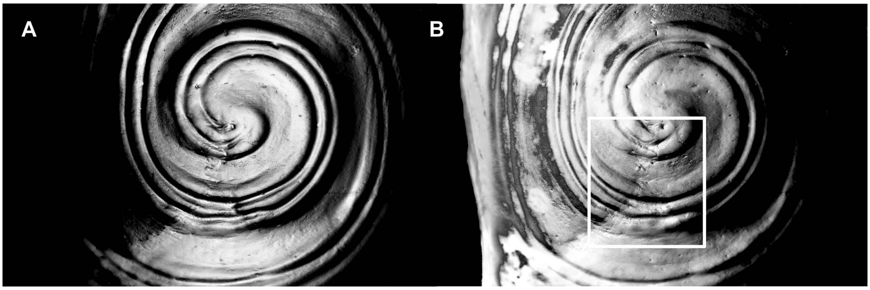


Figure 10.10 Knowth macehead. RTI Image Copyright: Marta Díaz Guardamino/Andrew Meirion Jones

has been interpreted as being 'overtly anthropomorphic' (O'Sullivan 1993, 40). The intrusion of a handle into the macehead would, however, diminish the impact of a facial representation. In fact, the Knowth macehead is a skeuomorph: it closely resembles the form of maceheads made in antler (Simpson 1996).

Apart from the regularity and layout of the design on the Knowth macehead, one of the key aspects that stands out is that the spiral decorations on the front and to either side of the macehead are executed in shallow relief. This is a very unusual technique amongst the Neolithic corpus and is only paralleled by the decorative technique on the largest of the Folkton Drums (Longworth 1999; Jones et al. 2015; see Chapter 11). It follows that the execution of this technique involves the removal of excess material from the main body of the artefact, and most of the evidence for manufacture revealed by RTI was of this nature.

There are a series of faint marks of incision above the double-spirals of the 'face' of the macehead, these marks are oriented in two directions possibly indicative of the difficulty or awkwardness of removing flint from this region of the macehead. Further marks of the same kind are evident in the space between the spirals and the hole. Additionally, a series of nicks are evident at the base of the hole, though these are likely to be marks of wear. The nested groove motifs on the opposite side of the macehead stand out as being executed with less care than other motifs. Analysis of the sequence of execution, in relation to the motifs on the sides of the macehead, suggests that these nested grooves were added at a late stage in the macehead's decoration. Again, on this same side of the macehead, nicks were evident around the hole indicative of wear (maybe from a handle).

Probably the most striking feature of the macehead revealed by RTI was the texture difference between the orange and white flint. It is evident that the white flint is much harder than the orange, and we believe that these texture differences were observed and exploited by the Neolithic craftsperson in the organisation of the motifs. The distinction between the qualities of the flint are very evident in the carving of the spiral on one of the faces of the macehead: the spiral decoration passes through a region of white flint, and as it does so deflects the hand of the

carver, making for a more inaccurately executed motif. The flint does not collaborate passively.

The RTI analysis provides additional evidence on the choice of materials and the skills involved in making this magnificent Neolithic artefact. It allows us to appreciate the complexities of making and the degree of work involved in the completion of this piece.

Decorated conical sandstone shaft, Knowth

The decorated conical sandstone shaft is an unusual object (Figure 10.11). It was deposited near the entrance to the western tomb, Knowth 1 (Eogan 1986). Again, it is a skeuomorph: it bears a strong resemblance to the decorated bone and antler pins from passage tomb contexts. It is decorated in a similar fashion to these pins (with a series of grooves circling the shafts of the pin at regular intervals). It also has a lateral groove that parallels the natural grooves carrying blood vessels in shafts of bone, found on bone pins.

RTI analysis suggests a strong possibility that this object has been reworked and redecorated over the course of its journeys. Evidence for reworking is in the form of the grooves cut around its circumference. Notably some of these are less well finished than others, suggesting the potential of phases of reworking.

This possibility is underlined by the fact that a faintly pecked inverted L-shaped motif was visible running up the shaft of the object, and this had been cut by one of the pecked grooves providing clear evidence of a prior phase of decoration and a sequence of reworking.

Sandstone baetyl, near Knowth 12

Of the three artefacts from Knowth discussed here, this object exhibits the clearest evidence for sequences of reworking (Figure 10.12). Pecking has shaped the

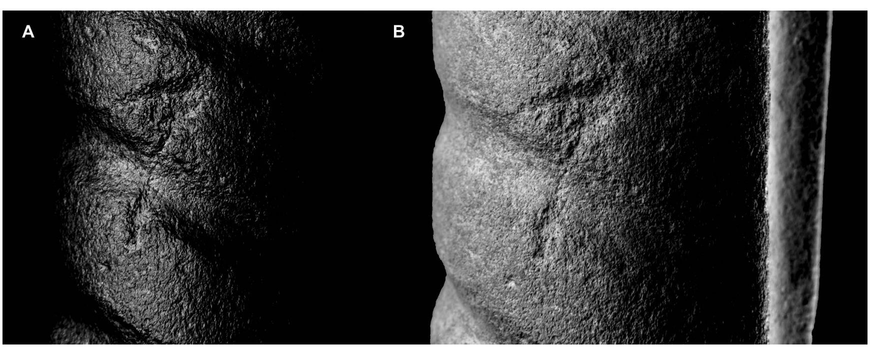


Figure 10.11 Sandstone object from Knowth entrance. RTI Image Copyright: Marta Díaz Guardamino/Andrew Meirion Jones

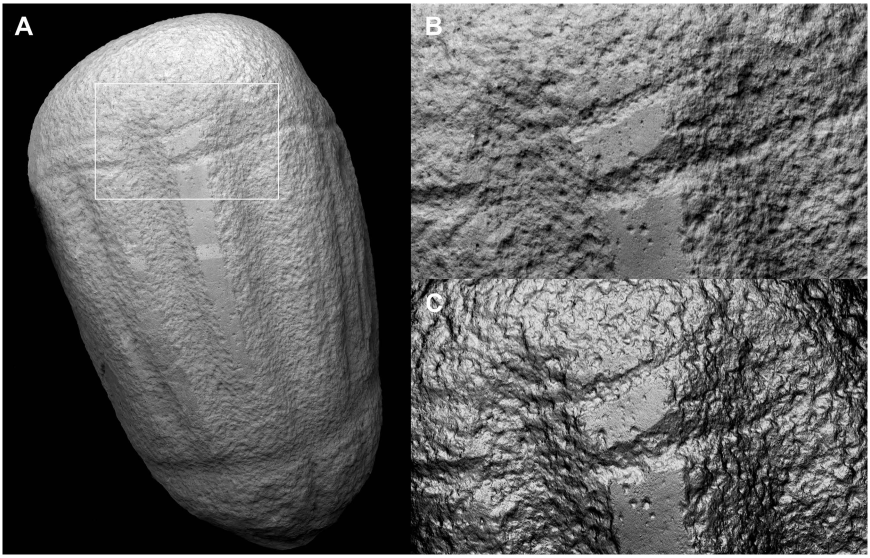


Figure 10.12 The baetyl stone from Knowth 12. RTI Image Copyright: Marta Díaz Guardamino/Andrew Meirion Jones

entire surface of the baetyl: peck marks are clear in the RTI. On the obverse side of the baetyl, the upper horizontal groove appears to cut the thick grooves running laterally along the length of the stone. Areas between these grooves have been smoothed to a polish. The bottom horizontal groove is, however, cut by the major central lateral groove.

On the reverse side, again the top two horizontal grooves, cut the lateral grooves. These grooves seem to terminate either side of the major central lateral groove. The sequence of activity seems to be that the major central lateral groove has been recut or reworked on more than one occasion. The lower horizontal groove certainly cuts the lateral grooves. On this side of the stone, the polished area standing proud between the grooves is very clear. This baetyl stone therefore has a complex history of decoration, and the sequences of cutting and recutting of grooves indicate that the decoration on the stone has been reworked on at least one occasion.

Two of the three decorated objects from Knowth are evidently skeuomorphs. Two also provide clear evidence of having been reworked, while the third, the Knowth macehead, demonstrates the close intra-action between materials and maker. While the theme of reworking appears to be a significant factor in a host of Neolithic artefacts, is this reworking part of the process of manufacture, or a deliberate practice taking place after the initial production of the artefact? That question is resolved by looking at the group of slate plaques from Ronaldsway, Isle of Man.

Decorated slate plaques in the Ronaldsway culture of the Isle of Man

We have examined the Irish evidence, and we turn now to material from the Isle of Man, situated in the centre of the Irish Sea. The Isle of Man sits apart geographically and culturally from the British and Irish Neolithic sequences. The distinctiveness of the Manx Neolithic was debated in the early years of the twentieth century (Clark 1935), but it was not until a series of remarkable excavations during the war years in advance of the extension of Ronaldsway airport (Bruce et al. 1947), in the south of the island, and at the multi-period site of Ballateare (Bersu 1947) in the north of the island, that an island-wide Late Neolithic 'Ronaldsway culture' came to be defined.

The material signatures of this Neolithic included a distinctive class of tall round-based earth-fast jars, known as Ronaldsway jars, often found associated with small decorated Grooved Ware vessels. Other distinctive artefacts include roughened truncated butt (RTB) axes, hump-backed scrapers, lozenge-shaped arrowheads and the decorated slate plaques that are the focus of our discussion here.

The five slate plaques, deposited in a group at the back of the Neolithic dwelling at Ronaldsway (Bruce et al. 1947), have remained a curiosity since their excavation. Decoration is documented on two of these plaques. Since the 1940s, a further decorated plaque was excavated from a pit site at Ballavarry (Garrad 1984). The plaques routinely appear in account of the Manx Neolithic (Bruce et al. 1947; Piggott 1954; Burrow 1997), though their function and associations remain enigmatic. Many authors mention the close resemblance between the decoration on the plaques and decoration on Grooved Ware vessels (e.g. Burrow 1997, 21).

The results of the digital analysis of the plaques are remarkable and highlight two key aspects: the organisation of motifs, and evidence for erasure and reworking. The decoration on the plaques is executed by fine scratch marks (Figure 10.13). These are likely to have been executed with a sharp flint implement based on the fineness of the scratches. RTI analysis enables us to gain a clear picture of the organisation of these scratched motifs. The best-known decorated plaque is Ronaldsway plaque 'e' (illustrated by Bruce et al. 1947, Piggott 1954, 349; Burrow 1997, 30). The obverse side of this plaque exhibits three registers of lozenge motifs running horizontally across its surface. The reverse of this plaque also has a register of parallel zig-zag motifs, and a further register of lozenge motifs below this.

Ronaldsway plaque 'd' is also decorated (Figure 10.14). The imagery of this plaque is very difficult to discern in previous documentations, however, using RTI it is possible to see that the obverse is decorated with a register of widely spaced lozenges, near its base. The reverse, meanwhile, is extensively decorated. The top of the plaque has a register of widely spaced zig-zags. These are obscured beneath grinding marks probably intended to remove this register of motifs. Below this area of grinding is a register of widely spaced zig-zags. Just below that is a set of small tightly spaced zig-zags. Below that are large widely spaced zig-zags.

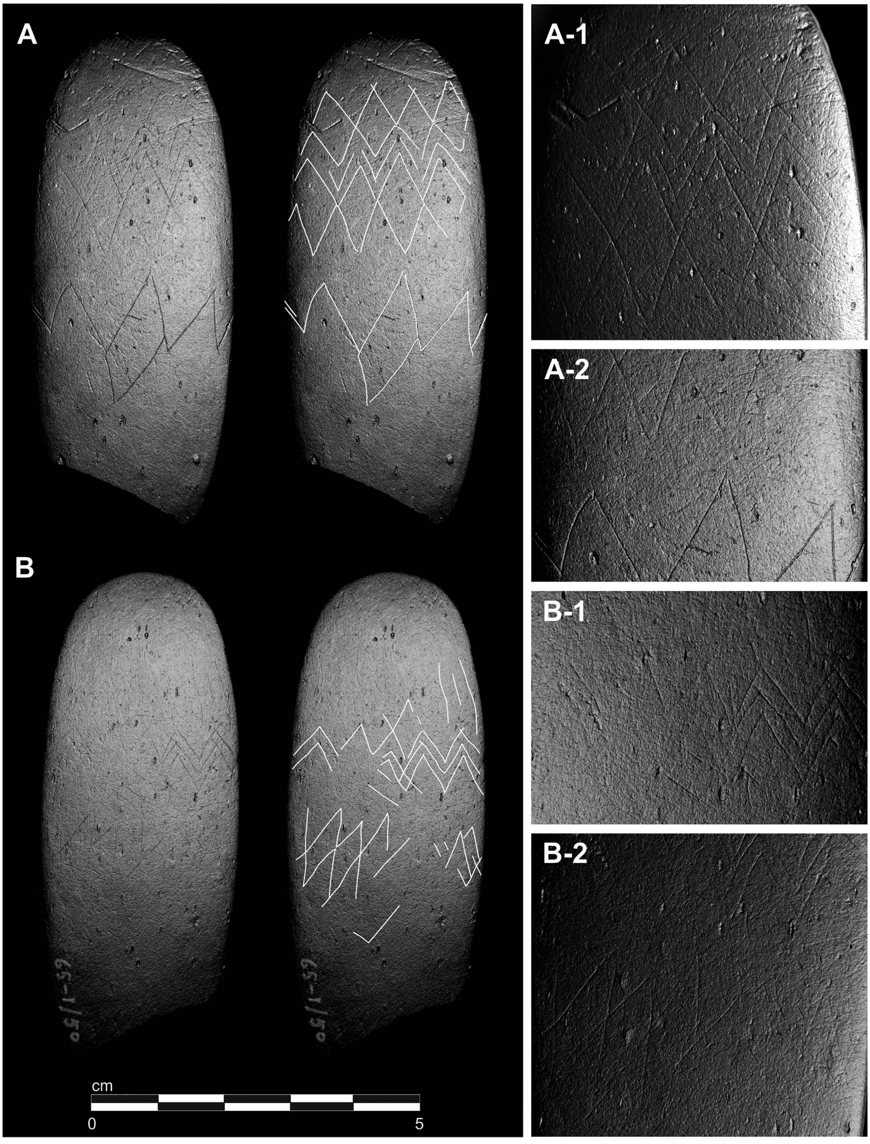


Figure 10.13 Manx plaques: Ronaldsway plaque 'e'. RTI Image Copyright: Marta Díaz Guardamino/Andrew Meirion Jones

Finally, near the base, there are large widely spaced lozenges or the poetically termed 'butterfly' motifs.

The Ballavarry plaque (Garrad 1984) also has a distinctive series of decorations (Figure 10.15). On the obverse of the plaque, there are two horizontal incised

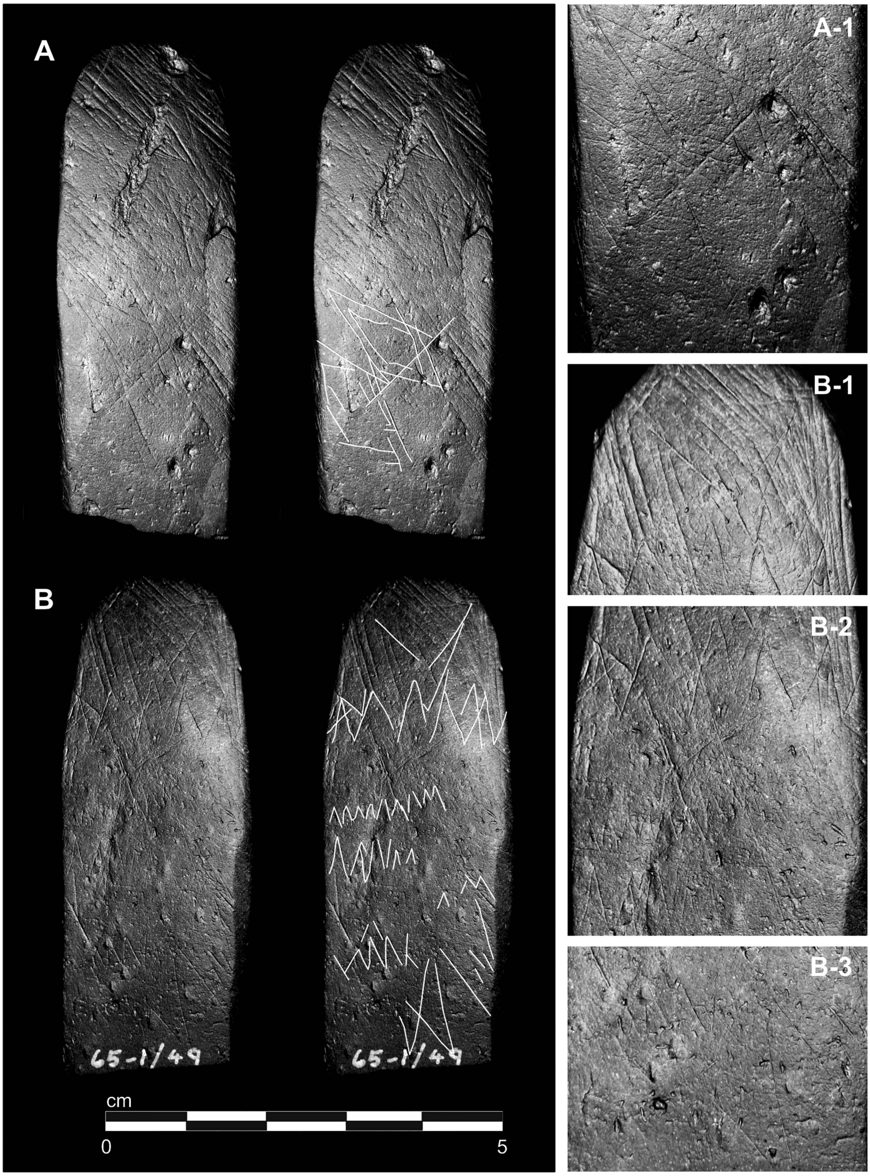


Figure 10.14 RTI analysis of Ronaldsway plaque 'd', Isle of Man

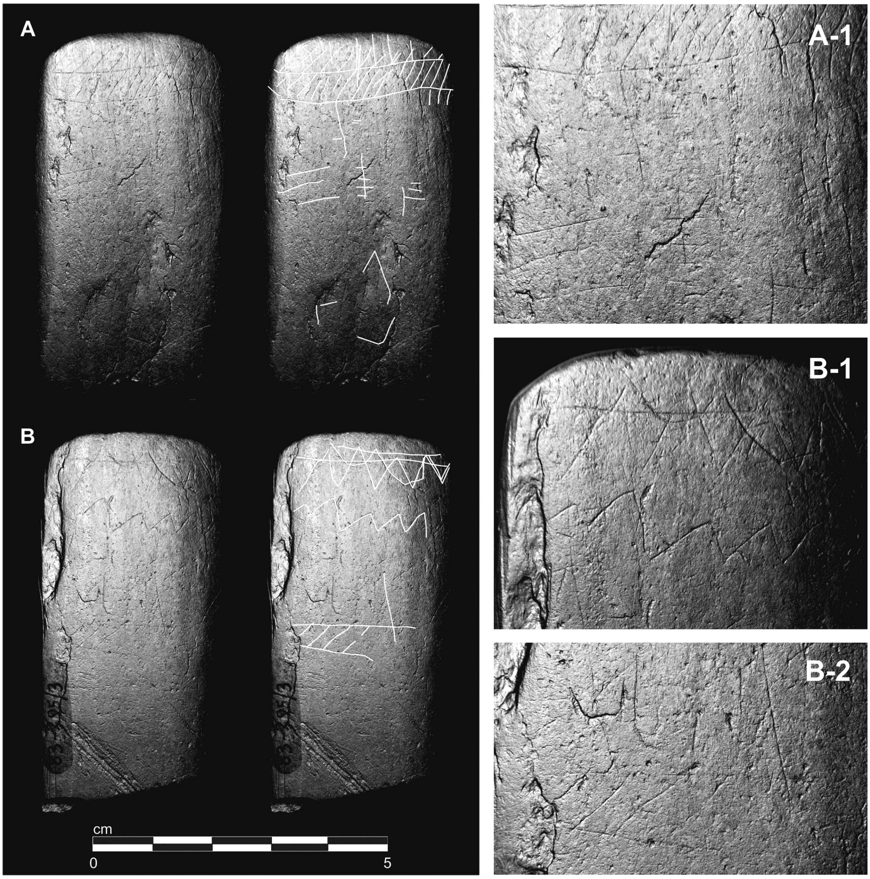


Figure 10.15 RTI analysis of Ballavarry plaque, Isle of Man

lines making two distinct registers. Above and between these lines are a series of oblique incisions. At the midway point on the plaque, we can discern the faint traces of two more evenly spaced horizontal incised lines – especially prominent to the left – with the possibility that the lower of these continues to the right of the plaque. At the centre of these horizontal incised lines is an incised design, resembling a modern Greek Cross. On the reverse of the Ballavarry plaque, an incised zig-zag line bisects a horizontal incised line and forms a distinct design. At the same time the horizontal line bisects another worn zig-zag just below it. Mid-way down the plaque there is further decoration formed by two horizontal lines sandwiching a series of oblique lines. These motifs are cut by an oblique line just above it.

The RTI analysis enables us to discern the organisation of motifs on these plaques with a greater degree of clarity, and there is a notable emphasis on distinct registers of decoration. More interesting is the evidence provided by RTI for the reworking and erasure of motifs. We have already seen on the reverse of the Ballavarry plaque that the top incised zig-zag cuts over an incised horizontal line that crosses over another worn zig-zag, and that at the mid-way point two oblique lines cut across the register of motifs.

Erasure is especially clear on the top of the reverse face of Ronaldsway plaque ‘d’, and the reverse of the Ballavarry plaque. For Ronaldway plaque ‘d’, a register of widely spaced zig-zags lies beneath, and is just visible though a cluster of grinding marks evidently meant to efface the motifs (Figure 10.14). The best evidence for erasure comes from the obverse side of the Ballavarry plaque. Careful visual inspection of the top register of motifs – formed of two horizontal lines framing oblique incised lines – shows that there are short incised vertical lines beneath the oblique lines (Figure 10.15).

It is clear then from the Ronaldsway slate plaques that reworking and erasure is not simply part of the process of the primary working of artefacts, but is in fact a deliberate practice in which decoration is treated as part of an ongoing process of engagement with artefacts.

Comparing decorated artefacts, passage tomb art and rock art

We have examined rock art, passage tomb art and decorated artefacts from Neolithic Britain and Ireland and a series of commonalities are evident. There is a clear attentiveness to materials, with rock surfaces in Kilmartin, the surfaces of kerbstones at Newgrange Site 1 and the Knowth macehead all indicating that working with the properties of materials was significant during the Neolithic. This was also evident in the decorated interior stones at Fourknocks which worked closely with the architectural arrangement of the tomb. We also observe a strong sense of relationality. This is clear from the emphasis on skeuomorphism in certain contexts, such as the decorated artefacts in Irish passage tombs. We also observe relationality across a series of contexts: similar motifs – such as spirals – occur in rock art, passage tombs and portable decorated artefacts.

Importantly, we have also noted that materials continued to be attended to throughout. We discussed how the interior of Newgrange Site 1 was extensively reworked, as were a host of artefacts from across Britain and Ireland. Furthermore, we highlighted that Irish passage tombs themselves continued to undergo processes of construction and renewal. The working of materials was not a one-off activity; materials continued to be worked on throughout their movements in time.

One of the clear points to emerge from our analyses of artefacts is the relationship between decoration and working. Many decorated artefacts are associated with other activities – flint mining, monument building and burials. Their

decoration seems to occur as part of the currency of these activities. As such, the working of art, is closely related to a continuing engagement with specific materials; the working and re-working of the Monkton Up Wimborne chalk block is a good example of this, as are the slate plaques from the Isle of Man.

The kinds of practices associated with decorated things seem to resonate with what we know about passage tomb art. Passage tombs are built of specific materials from a variety of locations in an environment. As we have seen, the building of passage tombs seems to closely relate to the making of art (e.g. Lewis-Williams and Dowson 1993; Robin 2009; 2010). A similar practice has recently been identified at the Neolithic settlements of Skara Brae and Ness of Brodgar, Orkney, where mark-making appears to be closely related to spatial and temporal moments of transition (Thomas 2016, 199).

In the case of artefacts, decoration may relate to a moment in the journeys of things – just before they are deposited or discarded, though we can also detect an ongoing process of reworking, as with the slate plaques from the Isle of Man. In the case of passage tombs, decoration appears to be an ongoing process, and the interior of monuments may be reworked on many occasions. This contrasts sharply with rock art. Here we see little evidence of reworking or erasure. Motifs are juxtaposed rather than superimposed. What we do observe are greater or lesser concentrations of rock art. Analysis of rock art across Scotland (Freedman 2011) identified a few key landscapes – Kilmartin, Strath Tay and Galloway – with high densities of motifs against most other regions with minimal coverage of motifs. The same pattern seems to occur across Britain and Ireland (Bradley 1997; O'Connor 2003). Instead of reworking panels, the practice in some rock art environments seems to tend towards repetition and the concentration of activity in single panels and places. Importantly, each mark-making practice – rock art, passage tomb art, decorated artefacts – appears to highlight significant features, though in contrasting ways.

It seems likely that these different practices of working, and relating, involve alternating ways of reckoning time. The working of artefacts, and passage tombs emphasises a sense of time as malleable or cumulative: ways of working which seem to attend to the layers of events, and activities, that have gone before. The act of working itself also appears to be significant. Here, time is materially performed.

Rock art sites, by contrast, seem to focus on narrating time. The physical juxtaposition of motifs strongly emphasises the relationships between them. For instance, the Kilmartin motifs are inter-referential (Jones 2006). Each site relates to other sites by echoing motifs found in other places. Here, there is less emphasis on the act of making art. Instead, once made, motifs are intended to enhance relationships for generations to come. In this case the reckoning of time is closer to one of record.

Interestingly, these distinctions in ways of relating time are sharply highlighted by the distinction between the treatment of passage tomb interiors and exteriors. The interior of Irish passage tombs are extensively reworked, while decorated panels on the exterior of passage tombs may only be reworked once or twice

(Jones 2004). The activities that occur in the interior of passage tombs appear to strongly relate to a performative practice, while those on the exterior are more closely related to the kind of practices we observe in open-air rock art, being more obviously associated with the record of their construction.

These distinctions in practice are of course parts of a continuum. Each practice is partly performative, and partly relates to a sense of record. It is important that we do not see performance and record as a dichotomy; each practice is enfolded within the other. Making rock art is a performative activity that is intended to leave a more lasting record of the events performed. Conversely, the marking of decorated artefacts is a relatively ephemeral activity which leaves little permanent record, but in which the performative act of making is heightened: the act is intended to achieve an effect.

Both sets of activities are repetitive. We observe the repetitive reworking, erasure and effacement of marks on decorated artefacts. Similarly, we observe repetitive recarving in Orcadian settlements and passage tomb interiors. By contrast, on passage tomb exteriors and in open-air rock art carving is repeatedly undertaken, though here it does not efface earlier motifs, but adds to existing carving. Cochrane (2009) argues that the erasure of earlier motifs in the interior of Newgrange need not simply be seen as defacement, but as an activity of ongoing engagement that serves to enhance and add to the previously carved surface. Considered in this light, the motifs on the exterior of passage tombs, and on open-air rock art panels might be considered as additive, as embellishing and enhancing earlier carvings. Each set of activities (associated with decorated artefacts, settlements, passage tombs and rock art) foregrounds different ways of reckoning, or engaging with, materials. In the case of decorated artefacts, the qualities of materials are explored and emphasised through repeated working. In the case of passage tomb interiors, the importance of place and the commemoration of the practice of building are highlighted. In the case of rock art, the emphasis is on the significance of particular materials within a place.

The erasure of previous motifs on the stone's surface in passage tomb art is not merely a matter of making things disappear, as there is always a residue produced, some change in the surface, some reminder of action taken (Taussig 1999, 2). We are left with not just an absence, but rather an active and ongoing palimpsest. What we have instead is permanence and impermanence in flux; the overlay may be an attempt to preserve actuality. We have a creative destruction – we are presented with new images, media and works. There is a fine balance then between a sense of performance and a notion of record.

Conclusion: 'hesitating on the borders of signification'

Our analyses of the art traditions of Neolithic Britain and Ireland has ranged widely from rock art to passage tomb art and decorated portable artefacts. We have identified a series of commonalities and differences in these art traditions, and have emphasised processes of working and an engagement with materials as

critically important to understanding such movements. We have emphasised the fluid character of images, and focused on the changeability of images.

These approaches to the art of Neolithic Britain and Ireland have presented themselves to us precisely because of the abstract nature of the imagery. It is difficult to discuss representational meaning with any degree of certainty for this art. Despite the intractable character of this imagery, archaeologists continue to discuss motifs as if they were representations. At Newgrange, Sir Thomas Deane originally speculated that the spirals on C3 were intended as a plan of the mound, and supported this by discovering two previous decorated kerbstones. Coffey, however, challenged this interpretation as a 'fortunate coincidence' (1912, 12) because no passages were found behind them. The idea that it is the spirals that suggest possible passageways has also persisted in archaeological literature. For instance, Dronfield (1996, 54) has proposed that the spirals located near the mortuary deposits and basins, were believed to be passages as well as presentations of passages for points of access to other worlds (see also Lewis-Williams and Pearce 2005, 267–269).

People often see what they want to; for instance, Adolf Mahr (1937) found his favoured swastika in Newgrange Site 1. O.G.S. Crawford (1957) was convinced the circular motifs on passage tombs were evidence of an 'eye goddess' cult that could be traced through prehistoric Europe back to Syria. Hartnett (1957) described stone 7 at Fourknocks as a face. Darvill and colleagues (2005) argue that certain incised lines on the Cronk Yn How stone, Isle of Man are images of deer. More recently, a component of the art at Newgrange is described as resembling a humpback whale (Hensey 2015, 79–94). Do we dismiss these interpretations as mere wishful thinking, the legacy of viewers brought up on the post-Renaissance tradition of figuration and allegory?

We have not emphasised representation or figuration in our interpretation of the art of Neolithic Britain and Ireland; and yet, in certain cases figuration appears to be a possibility. It is notable that human figurines have recently been excavated from two Late Neolithic sites in Orkney, the Links of Noltland and the Ness of Brodgar. Furthermore, certain motifs (e.g. the 'eyebrow' motifs on the chalk artefacts known as the Folkton Drums) are suggestive of human faces (see Figures 11.1 and 11.2). 'Eyebrow' motifs also occur as a component of passage tomb art at the Holm of Papa Westray North, Orkney (Ritchie 2009), and they have recently been discovered at the Neolithic settlement of Smerquoy, Orkney (Richards and Jones 2016). Additionally, these eye-like motifs occur on the Knowth macehead – the double spiral on this artefact, coupled with the hole in the artefact, lends the macehead a face-like quality. This suggests that figuration need not be so fanciful an idea (though we are suspicious of some recent interpretations). Instead, it is important to emphasise the ambiguity in many of these images: they are multi-stable, at times they appear figurative, at other times they seem quite abstract. The multi-stability of imagery in Neolithic art is nicely caught in a phrase by the artist Louisa Minkin (2016) discussing the decoration of the Folkton Drums as 'traces and marks hesitating on the borders of signification'. We might

say that the figurative aspects of British and Irish Neolithic art are conditional or situational; their appearance alters according to their situation, whether in mortuary contexts or houses. At certain times and in certain places, Neolithic mark-making can be taken as figurative and representational, while the majority of the time it appears to be non-figurative. At certain times and places – particularly those associated with death and burial – the eyebrow motifs carved on artefacts and monuments returned the gaze of Neolithic peoples.

While we believe that ambiguity is a feature of Neolithic art in Britain and Ireland, we also argue that ambiguity is a characteristic of all representational imagery. One of the challenges of representation is to produce a likeness (a representation) out of something else. Representations always have an ambiguous and unstable relationship to the materials from which they are made. We explored the ambiguous relationship between matter and meaning in detail in Chapter 9. Representations are drawn out of Neolithic marks, through attentive intra-action, they are not necessarily latent to mark-making practices. The significance of process – the act of mark-making – appears to be a far more important component of Neolithic mark-making in Britain and Ireland.

11

ARCHAEOLOGY THROUGH THE LOOKING GLASS

Photographic documentation and the politics of display

Andrew Cochrane

> *A science that engages the most elevated intellects, an art that sharpens the wits of the wisest souls – and the practical application of which lies within the capacity of the shallowest imbecile.*
>
> Félix Nadar, 1857

Writing in the mid nineteenth century, Nadar was not discussing archaeology, but photography, which he regarded as the most marvellous of discoveries. For Nadar (2015 [1900]), the mixing of science and art was imperative for the success of human advancement and expression. Such ideas permeated their way across the Atlantic to painters who were often described as the American Pre-Raphaelites. Here, technology influenced practice, with the belief that visual truth was defined by photography. Allegedly, the highest compliment an American Pre-Raphaelite could pay others was suggesting that their work looked like a photograph. Which begs the question why they did not just take photos instead (Danto 2013, 104). Yet, photographs are not simple representations of reality or even how we might see the world. Eadweard Muybridge's photographs of horses in motion from the late 1870s illustrate this nicely. His stop-motion photography created images of horses at a gallop – but they do not look how our brains often let us see them. Muybridge mocked painters for their false versions of horses running, and some artists such as Edgar Degas even changed their paintings to mimic the photos. Interestingly, these renditions look less than realistic (Danto 2013, 105). The idea that optics and lenses can influence how some people paint probably pre-dates photography. For instance, it has been argued that the seventeenth-century artist Johannes Vermeer used the camera obscura (a proto-camera) to create many of his iconic paintings (for the use of the camera obscura in seventeenth-century Netherlands see Alpers 1983; for Vermeer and the camera obscura see Steadman 2002; Hockney 2006; Hockney and Gayford 2016). Things that are peculiar to the

optical image begin to present themselves in other mediums. Artificial optics do not create visual truths, but they can re-orientate how we think and see. The ability of lenses to sharpen or soften understandings, to the way things show themselves, is something we will focus on in this chapter.

The nineteenth-century literary writer Honoré de Balzac expressed a fear and distrust of the Daguerreotype (an early form of photographic device) reported Félix Nadar (Sontag 1977, 159). For Balzac (unless he was joking with Nadar), the photographic techniques focused on details, and juxtaposed them with other elements in the world. The living world is a process in flux, and he feared the photo fixed a particular assemblage of details in place. History proved him wrong. Assemblages (and images) are never static, and are always in a state of movement. The photo does not capture or freeze frame time – it is an ongoing moment.

In 1853, after discussions with William Henry Fox Talbot (a founding father of photography), the British Museum commissioned Roger Fenton to use photographic methods to investigate their collections; particularly inscribed plaques. Unfortunately, the money ran out and Fenton went to the Crimea to become the world's first official war photographer (Dorrell 1994, 2). Yet, the idea that image-making (especially photographic works) could help in further understanding ancient artefacts was set forever. This is a theme we pick up here. It is almost impossible to discuss the affects and effects of photography without the near obligatory references to: Walter Benjamin (1999; 2015); Susan Sontag (2008 [1977]); Ronald Barthes (2006 [1980]); John Berger (2013); Geoff Dyer (2005). Although these authors have all written compellingly on the power and impact of the photograph, none of them are, by their own admission, photographers. This means that they focus mostly on the presented image (the photo) rather than the processes of creating the image (both pre- and post-production). Yet, in reading their understandings of image-making, you are often left with the sense of the kinds of photos that they would have taken, if they had picked up a camera (Dyer 2005, 11). This chapter will complement final forms with considerations on the processes of making.

The burden of proof

Since the seventeenth century, the politics of display and visual documentation have influenced our understanding of the past. For example, cabinets of curiosities, woodcut iconographies, paintings, archives, publications, private collections and museum exhibits are all different modes of visual display that embed particular ways of seeing. Indeed, many of the origins of archaeology lie in art historical traditions, sharing conventions and vocabularies for visualising the world. Archaeological practice has progressed alongside modern visual technologies and scientific revolutions, such as section drawings and single-context plans, creating standardised media. Such developments have, however, generated a perceived gap between the objectivity and subjectivity of images (Thomas 2009; Russell 2013). Since the nineteenth century, many practitioners have sought to observe

and objectively document the world, be it the changing colours of soils or similarities of form. Archaeologists are trained in technical practices as a means of rendering things objective and allowing comparative analyses (e.g. Dorrell 1994; Westman 1994). After the acceptance of positivism in archaeology during the mid twentieth century, image-making tools (e.g. photography; Light Detection and Ranging – LiDAR) have increasingly been used to represent and document elements of the past (see Cochrane and Russell 2007; Bradley 2009; Cochrane 2013; Russell 2013). Such visual movements are not only persuasive but essential to contemporary archaeology. They have, however, helped create a situation whereby representational interpretations of all things in the past dominate – to end with a representational interpretation is understandable, to begin with one is problematic.

That representational approaches are used in archaeology is not necessarily a bad thing in itself; for instance, representation of data is integral to fieldwork. In more traditional archaeological narratives, some approach data with an expectation that all things represent things not present – invisible and intangible conceits. In such models, materials are passive and inert, patiently waiting for meanings to be overlain onto them by thoughtful people. The encoding and then decoding of things is deemed a universal human activity – being as popular in the past as it is in archaeology today (Cochrane 2012). That things represent anything becomes a *fait accompli*. In many accounts, people seem to step from intangible worlds, in order to represent their experiences as visual symbols. In such proposals the material world, distinct from humans, influences little in the process of representation. Materials appear transparent here; they simply serve as the substrate upon which representations are overlaid (Cochrane and Jones 2012).

The associations between archaeology and the modern regime of vision have been a primary concern in recent years (e.g. Thomas 2009; van Dyke 2008). Indeed, with the perceived ocular supremacy, it is argued that other senses have been neglected and underexplored in archaeological interpretations (Witmore 2006). To address these issues, we incorporate positions of 'visuality'. The term was first used in academia by the historian Thomas Carlyle in the mid nineteenth century. Opposed to panopticism and modernity, Carlyle strove to understand the past through visual narrative, to use visuality as a mode of presenting or contesting a worldview (Mirzoeff 2006, 54). Carlyle deplored attempts at the physiology of vision, and described the spectator less as a *see-er* and more as a *Seer*, thereby allowing more expressive and emotional visions. For Carlyle, visuality as an approach incorporated amongst other things, the sound effects, the drama, the complexities, the poetics, the images, the narratives, the taste, touch and the aroma of the past (Mirzoeff 2006, 54–57). It is this understanding of visuality that we employ here.

Archaeologists have long worked with a notion of empirical representational accuracy and fidelity. Over the history of the discipline, archaeologists have adopted a wide variety of methods of documentation, with early pioneers such as Adela Breton using watercolour depictions as a way of capturing the detailed

polychrome carvings of Mesoamerican architecture (Giles and Stewart 1989), or Owen Jones accurately recording the polychrome decoration of Egyptian temples (Moser 2012). A variety of methods of documentation are available, depending on the materials being documented. Tracing, often using acetate or plastic sheeting, laid over the surface of rock art sites was a common method of documentation up until recently in Scandinavian rock art studies, while in Japan rice paper was used for making rubbings of artworks on large flat surfaces. Such direct methods of documentation have largely been replaced by a variety of technologically advanced methods, such as laser scanning. Interestingly, while laser scanning avoids direct human contact with the materials being documented, it introduces fresh inaccuracies and problems. Possibly the most significant of these is that most laser scanned images are produced in greyscale, draining the recorded object of its colour. Laser-scanned images also have a tendency to 'invert' features, reproducing channels cut into materials as raised features; new technologies such as laser scanning are often presented as the last word in precision, but they still require subjective interpretation to achieve anything like accuracy.

Photography has long had an important place in archaeology, being used for on-site field recording and museum-based records. Yet, from its inception it has not been about capturing the Real; there was no analogue age of innocence (Shanks 1997; Bohrer 2011). Photoworks are about creation, manipulation and juxtaposition. This is why they work well. Increasingly, analogue and chemical photographic methods have been replaced by digital approaches to documentation. A panoply of digital techniques are now available, depending upon desired outcome. Multispectral imaging is possible for the recording of coloured materials and surfaces, though this is generally an expensive option. Other cheaper techniques include the use of D-stretch (or Adobe Photoshop CC if you already subscribe) applied to a digital image. Such methods, to a greater or lesser degree, enhance the coloured image. Other work-flows for digital creation are available, for detailed three-dimensional documentation of things and their surfaces, such as RTI and photogrammetry. We will turn to these now.

RTI and photogrammetry: use and potential in archaeology

Reflectance Transformation Imaging (RTI) (Mudge et al. 2005), and one of its subdivisions, polynomial texture mapping, was developed in the Hewlett Packard Laboratories, USA, in 2001 (Malzbender et al. 2001). It is a non-destructive, affordable and easy-to-perform imaging technique. There are many interesting applications in the field of heritage, based on its ability to acquire and present the three-dimensional reflectance properties of things. Compared to traditional texture mapping, polynomial texture maps and reflectance transformation images provide increased definition, including surface colours, self-shadowing, subsurface scattering and inter-reflections. The technique samples and models the level of reflectance independently for each pixel, enabling the user to manipulate

the material properties of things in the scene (Malzbender et al. 2004). The technique uses digital photographs taken under a suite of different lighting conditions, which are then processed using Open Source software.

Close-range photogrammetry, image-based modelling or structure-from-motion photogrammetry involves the construction of a three-dimensional model of something from two-dimensional images; it has been applied in the digital re-creation of archaeological artefacts and works of art. The most widespread use of this technique, however, has been for monuments, historic buildings and their facades, rather than for portable antiquities. Research has, however, demonstrated that photogrammetry is capable of high-quality data capture, even at millimetre range (Salonia et al. 2009). Photogrammetry has been used for documentation, monitoring of structural problems and authentication studies, as it provides advanced volumetric perception and enhanced material description (Yilmaz et al. 2007). Structure from motion photogrammetry is also increasingly being used to document rock art (Meijer 2015).

RTI involves the use of various things, including cameras, tripods, spherical balls or marbles (used as references to record the orientation and intensity of light), remote triggers and speedlight flash units. Basic photographic approaches to exposure are needed, the 'photographic triangle' (Peterson 2010, 16) comprising: aperture, shutter speed and ISO. Light is essential and the ability to control speedlights (portable electronic light sources) is a key requirement. For many photographers who have mastered working with ambient light (also known as available light, e.g. the sun), the notion of learning how to use a speedlight can be terrifying (Peterson 2011, 8). Results at first are generally over- or underexposed. Yet, once you learn how to work with this light source, you soon realise you have control over a small sun (McNally 2009). This is where things become interesting, as you effectively can influence your own miniature world – illuminating things from as many different perspectives as possible. The RTI software renders the jpeg data files into a composite image, in which you can then seamlessly manoeuvre your light sources. Such movements are not about capturing the real, rather they present a range of possibilities. They highlight the temporality of the image; they show how images change over time.

RTI and photogrammetry blur dichotomies; the images created are simultaneously the subject and the object – in many ways they are also neither. They are composites comprising multiple merged digital photographs. Such collectives render via layers; which remind us of archaeological layers/strata. These digital techniques appeal because they do not create summaries or interpretations. Instead, they are assemblages of data that researchers can collaborate with. They render the unfamiliar familiar, the small becomes large, and the known changes into something fresh and new (e.g. the Folkton Drums, below). They are less photographs, and more photoworks, to borrow an expression from Shanks (1997, 73); or following Bolt (2004, 111), working photos. It is participation and exclusion via process, performance and image creation. Here, the dramatic is dramatised, with parts juxtaposed, emphasised and presented in a variety of ways. Thinking

through photos and associated software is useful, as it enhances the idea that works of art work within layers.

The Folkton Drums

Our short case study looks at a group of three carved chalk artefacts from the British Neolithic (see previous chapter), recorded using RTI and photogrammetry. These are the Folkton Drums, Yorkshire. The Folkton Drums are the most remarkable decorated artefacts from Neolithic Britain, part of a wider group of decorated artefacts of chalk, antler and stone. The Folkton Drums are cylinders carved from a dense chalky limestone that were buried in a barrow covering a child burial. Although named 'drums' by their excavator (William Greenwell in 1889), due to their cylindrical shape and prominent bosses, it is unlikely that these are representations of musical instruments. The characterisation has, however, remained in the literature since then. The burial was situated at the outer edge of the second of two concentric ring ditches (Kinnes and Longworth 1985), the remains of the barrow. The three cylinders of carved chalk were placed at the head and hips of the child. This burial is part of a wider tradition of single inhumations beneath barrows, likely to date from the end of the fourth millennium or the beginning of the third millennium BC, therefore making them Middle–Late Neolithic in date.

There are three Drums, and they are very obviously a set, assemblage or group (Figure 11.1). Although each Drum is miniature in scale, they all differ in size, the largest (Drum I) being 120mm tall, with a diameter of 150mm; the medium size (Drum II) being 105mm tall, with a diameter of 120mm; while the smallest (Drum III) is 90mm tall, with a diameter of 105mm. As an assemblage of three, the Drums stimulate a play of differences. This is particularly noted with their decoration; themes of symmetry and asymmetry appear to be explored. The decoration on each drum refers to decorative motifs and schemes on the other Drums (see Jones 2012, for fuller discussion). The carvers also experimented with technique, with Drum I decorated in relief, while Drums II and III are decorated by incision. The authors used to give Gallery Talks about these artefacts at the British Museum; the excitement that the Drums created never failed to impress.

A study of these artefacts by the authors (Jones et al. 2015) using digital imaging techniques, including Reflectance Transformation Imaging (RTI) and photogrammetry, has added considerably to our understanding of their manufacture. Digital recording allows us to image and understand the details of the gestures and actions used in creation. In the case of the Folkton Drums, erasure appeared to be a key aspect of their manufacture, and evidence was revealed of erased motifs beneath existing images (Jones et al. 2015). Several of the decorated panels on the sides of these artefacts were initially decorated with cross-hatch incisions and subsequently erased, to create a pattern of differentially cross-hatched and 'blank' spaces. Erasure seems to be used as a technique precisely because of the friable nature of the material – chalky limestone – from which these artefacts are carved.

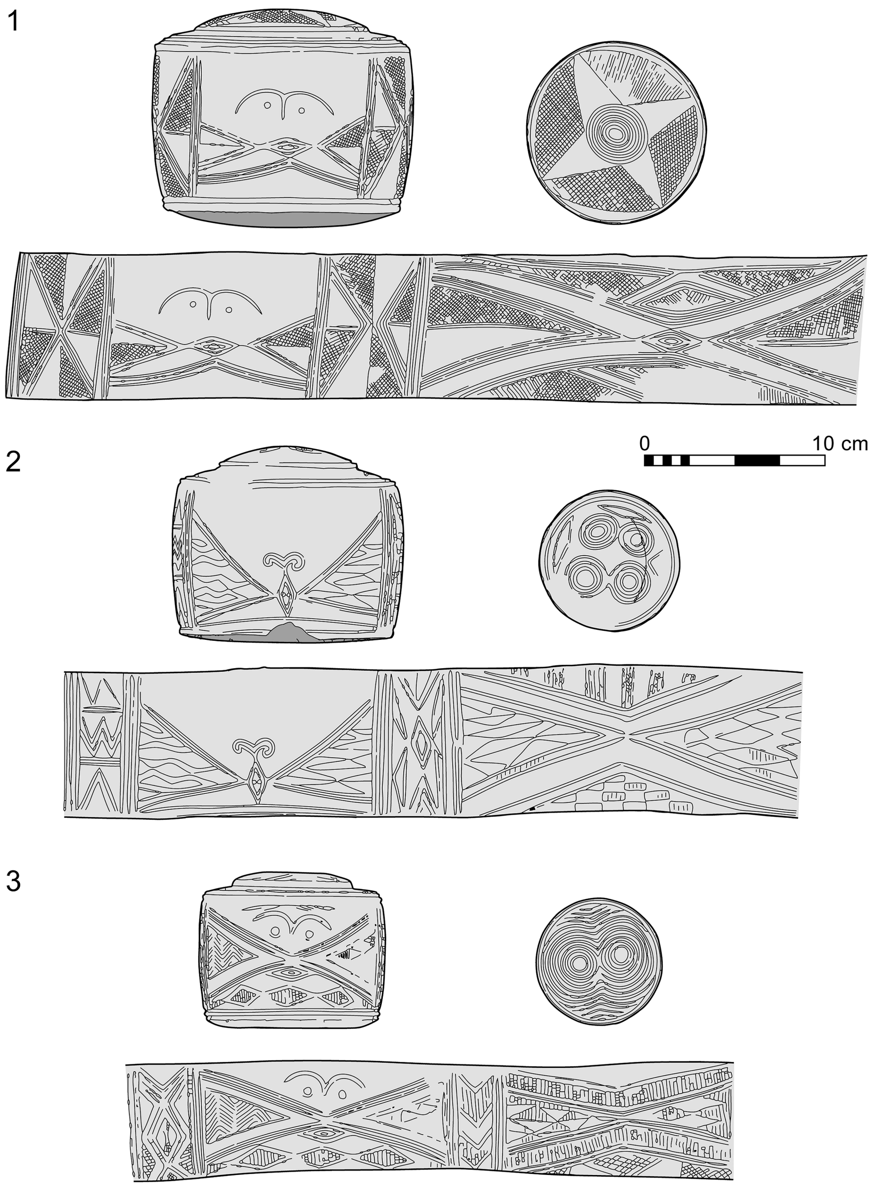


Figure 11.1 The Folkton Drums. Image by Aaron Watson, redrawn from original in Longworth 1999

It was evident from the digital analysis that a series of choices were made by the carver(s) in response to the material. In one case, on Drum II, motifs were tested in one location on the face of the Drum before being erased and relocated in a different position (Figure 11.2). Erasure was a significant component of the practice of decorating these artefacts, as is evident from the side panels of Drum I, where cross-hatched decoration had initially covered the interior of the panel and had then been erased to produce an asymmetrical pattern of infill and space (Figure 11.3). Both

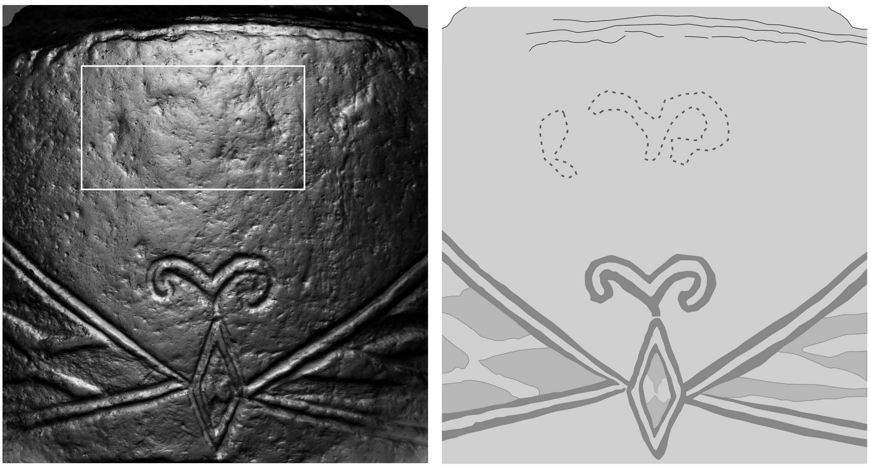


Figure 11.2 Erased eyebrows on drum 2, Folkton imaged using RTI. RTI Image Copyright: Marta Díaz Guardamino/Andrew Meirion Jones



Figure 11.3 Erased features on the side of drum 1, Folkton imaged using RTI. RTI Image Copyright: Marta Díaz Guardamino/Andrew Meirion Jones

these strands of evidence suggest that the carvers were improvising, responding to the material as they went, devising, trying out and erasing parts of the composition as they carved these three-dimensional objects. Here, we have creative improvisation at play. The material qualities of the chalk allowed the carvers to experiment as they went, in turns erasing motifs, and replacing them with other images. On other occasions, bringing in erasure as part of the design process.

Experimentation did not finish with the completion of the carved drums. It also occurred as the drums were subsequently handled and viewed (Jones 2012, 174–180). The drums are decorated using different motifs, but the decoration on each drum relates to the imagery on the others. We see differences in technique, with Drum I being decorated in relief, while Drums II and III are enacted by incision. The decoration of these things is an inter-referential performance. Relationships and engagements are heightened by the eye and eyebrow motifs on the front of these artefacts, and the eye-like concentric circle motifs on the bosses on the top of these artefacts. As argued elsewhere, the improvisatory and experimental performance associated with these artefacts occurred at a series of scales:

> they are made as an improvisatory performance, their diminutive size condenses the series of decorative references played out on their surfaces, their human like characteristics engages the observer, and all this is appreciated in a rapid and condensed form as they are produced, presented and then deposited in an oval grave alongside the body of a child.
> (Jones 2012, 180)

The RTI analysis echoes Tim Ingold's recent discussion of making. Taking his cue from the philosophers Gilles Deleuze and Felix Guattari, Ingold argues that we should think from materials (Ingold 2013, 94; see also Hallam and Ingold 2008), discovering as we go. The project worked in a similar way, recording the sequence of gestures involved in working these chalk artefacts, and uncovering the series of improvisatory decisions made as the chalk was worked and reworked. The Drums are not static finished objects, but rather unfinished business; decoration acts as singularities within the ongoing movement of the chalk. Improvisation, erasure, repetition and revision highlight the importance of thinking about archaeological art less in terms of finished symbols, and more in terms of processes of making.

Conclusion

Recent technological advances make it possible to obtain dense and accurate three-dimensional surface data via photogrammetry and fine surface 2.5D detail via RTI. These powerful techniques are becoming increasingly common in archaeology and the heritage sector as a means of documentation, analysis and dissemination. When their application is targeted on clear research questions, they can revolutionise archaeological practice and lead to new discoveries (see also Díaz-Guardamino and Wheatley 2013; Miles et al. 2014). In this case study, RTI

and photogrammetry enable virtual analysis of episodes of reworking. It allows one to move beyond representational analogues, beyond what Simon O'Sullivan terms interpretative 'non-encounters' (2006, 9–37).

Our case study here offers a useful example of the intra-active possibilities of digital technologies. It is important that the documentation of archaeological art moves beyond themes of accuracy and fidelity, and begins to acknowledge the politics inherent in scientific modes of seeing. As Donna Haraway proposed, the 'view of infinite vision is an illusion, a god-trick' (1991, 189). Instead, she insists on 'the embodiment of all vision . . . and not giving in to the tempting myths of vision as a route to disembodiment' (1991, 189). This means that we need to think carefully about the apparent objectivity of scientific methods of digital visualisation. Digital imaging is neither neutral nor objective (we are also no longer innocent); working with it, we need to be mindful of expectations regarding new techniques. Like all archaeological science, the nature and quality of our research questions will determine the character of our understandings (Jones 2002). We could use digital imaging methods to just objectively record archaeological art, or we could collaborate with them, to stimulate richer questions. In doing so, we can hopefully bypass the kind of critique levelled by Félix Nadar at the start of this chapter.

12

ART IN THE MAKING

Andrew Meirion Jones

We have reached the conclusion of the book and we still have not defined the term art. We find definitions unhelpful, and we are not interested in creating fixed lists of properties to define 'art'. It is just as appropriate to ask: what direction is art going in? How fast is it going? What will it take with it? (Holland 2013, 35). Instead we have preferred to sidestep definitions and address instead what becomes of art. In doing so, we have covered several topics in relation to the archaeology of art. We have looked at gesture, experimentation and performance, scale and miniaturisation, assembly and disassembly, style and meaning.

Art remains a difficult topic to pin down precisely because it is so slippery. In a sense, it is impossible to define as it has no single image of thought of its own; it destroys attempts to subordinate it to a particular model (see Deleuze and Guattari 2004 [1987], 377). If we briefly consider the history of Western art over the last few centuries, we detect restless change as artists debate amongst themselves and shift perspectives and practices from Impressionism, to Post-Impressionism, Expressionism, following then to Fauvism, Cubism, Suprematism, Constructivism, Situationism, Dada, Surrealism, Vorticisim, Futurism, Arte Povera, Mono-ha, Fluxus, Abstract Expressionism, Modern Art, Contemporary Art. One of the clear points that emerges from this is that art is not a graspable entity, it is a process; and a ceaselessly changing process at that. Art does not stand still, and art-making events produce a range of possibilities.

Images in four dimensions

Most archaeological and anthropological analyses overlook the shifting character of art (the work of Alfred Gell 1998 is an honourable exception to this; see also Hodson 2017), and tend to focus on the static image, at the expense of the changing image. This differs slightly from art historical approaches. Art historians are generally concerned with charting the changing circumstances of art production, and the question of art's changeability is usually confined to discussions of context and influence, though some art historians are beginning to grapple with the processes involved in making art (see Anderson et al. 2014).

The vast majority of scholarship in the archaeology of art emphasises images as two-dimensional representations (but see Back Danielsson et al. 2012; Alberti et al. 2013, Chapters 14–17, for attempts to move beyond this perspective). Our conviction is that archaeologists studying art need to think beyond this static view. This is not to say that semiotic and iconographical analyses of images have no value, it is simply to recognise that they are but a single dimension to our understanding of imagery.

We should also recognise the three-dimensional character of imagery. Again, even the best work dealing with three-dimensional art, such as figurines and statuary, tends to reduce these works to static forms of representation (Bailey 2005 is a good example of this, though he does discuss the dimensionality of figurines). For this reason, we have emphasised the critical importance of thinking about the role of materials in all their messiness and complexity in image-making (here we find the work of Nanoglou 2009 especially useful with regard to figurines). To think three-dimensionally is to consider the form, weight, scale, texture of things; this is what it means to think sculpturally (Cochrane 2009; Jones 2011; Jones and Bonaventura 2011).

While we feel that it is important to move beyond two dimensions to also consider the three-dimensional characteristics of images, it is far more important to think about images four-dimensionally. How do we do this? To think four-dimensionally about past imagery is to consider how images change over time; to think about the materials and events that brought the image into being; to consider the image in multiple dimensions, and to consider the dissolution of the image or its permanence (see also Witmore 2006). Why is the image maintained in a certain state? For us, this is the essence of an archaeology of art. An archaeology of art thus considers the role of materials in image-making, considers how images are brought about by intra-actions between past people and materials, and how such intra-actions are sustained or altered over time.

Importantly, new techniques of digital imaging (discussed in Chapter 11) enhance our understanding of the four-dimensionality of images, as they can detect the series of marks and intra-actions that make up images and how these are altered over time. One of the key points of these new digital technologies is not that they enhance vision, or that they allow us to see more accurately. Instead they allow us to see differently: to see new things. Many digital imaging techniques offer new kinds of images; images with a new kind of ontological composition. Likewise, along with new digital techniques, new chronometric analyses of art, positioning images in time, allow us to evaluate and assess the timing of changes undergone by past imagery.

This book has considered the many dimensions of image-making and breaking. In each case, we observed how one dimension is enfolded or encapsulated in the other. Or to put it another way, each dimension of practice offers the potential for expansion into further dimensions. We began by looking at the single dimension of gesture and analysing how gestural marking could lead to a better understanding of the two-dimensional image; the one-dimensional gesture is enfolded in the

two-dimensional mark. Images become two-dimensional because of practices that begin as gestures of a single dimension. At various stages, we have discussed the two-dimensional image, whether in the discussion of style or semiotics. In each of these cases we were not content to simply think of the image in two dimensions. We need to unflatten images (Sousanis 2015). We emphasised the importance of thinking of two-dimensional images as components of more complex assemblages composed of a variety of other things; we discussed both styles and meanings as elements of more complex assemblages; the two-dimensional image is therefore enfolded in a more complex four-dimensional image-in-process. Images are events in motion. While looking at the two-dimensional image, we have always had an eye in our analysis on how the image is always immanent, or replete with potentiality: always a single moment in an unfolding event, project or process. We have discussed the three-dimensional character of images, their role in performances, their scale and dimensionality. At the foreground of our discussion throughout has been an emphasis on the changeability of images, on their making, assembly and disassembly, on the shifting character of style and meaning, their movement over time. Again, the three-dimensional image is enfolded or embedded in a four-dimensional image.

Three-dimensional images are enfolded in four-dimensional images, and the appreciation or engagement of images involves a process of gradually unfolding images to reveal their secrets (see also Back Danielsson 2012). However, this process of unfolding requires that images are re-orientated and become enfolded in yet other assemblages. Engagement with images over time involves a continual process of unfolding and enfolding. This leads us to consider the historical dimension of images.

Images and history

Process can only be studied retroactively (Holland 2013, 19) and assemblages are always the result of historical processes (DeLanda 2011, 185). By discussing images in four dimensions, we do not mean that we are simply charting the appearance of images or art over long time periods (e.g. Sandars 1968; McDonald and Veth 2006; Robb 2015). As a discipline, archaeology can offer important deep time perspectives that are less available to disciplines operating on narrower timescales like art history and anthropology; we can examine change over long durations, and we are able to examine how the appearance of art relates to other factors, such as climatic or environmental conditions (McDonald and Veth 2006). In these kinds of analyses, it is insufficient to simply map the appearance and distribution of images over long timescales. Such approaches have also been criticised for being too universalist, detached and aloof (e.g. La Roy Ladurie 1975; Lesure 2007; Brewer 2010). Our analysis has instead highlighted the complexity and multi-dimensionality of art. These complex and multi-dimensional approaches need to be enmeshed with deep time perspectives. We are not simply charting imagery over long time periods, we are examining the changing processes and

practices associated with art and imagery, over long durations. There is a danger that deep time perspectives only offer a surface view of art and imagery, divorcing them from their complex generative material processes. What is required is an approach that encompasses both an understanding of how acts associated with images unfold over shorter and more extensive time periods. We need a history of emergence. Fortunately, Tim Pauketat (2013) offers us just such an approach, in his view of bundles of time. Pauketat (2013) argues that the kind of small-scale relationships we have described in our four-dimensional analysis of images are in fact also components of larger historical assemblages; large-scale processes and small-scale processes are associated relationally. We will grasp this approach with both hands as we develop the notion of images-as-assemblages below.

The archaeology of art and the ontology of the image

We have outlined then a prospectus for an extended four-dimensional analysis of past imagery. We have organised the book to take account of this approach to archaeological art precisely because we feel this highlights an important characteristic of art in general: its multiple and changing character. If we are to take a long-term perspective on art, then we also need to remember that art and images are mercurial in character. What happens as art and imagery change over long durations? We argue that one of the key functions that art and imagery achieves is world-making: art and imagery shape new ontologies over time.

One of the tasks that artists are engaged in is composing the world, assembling materials to achieve certain affects. Throughout this book, we have examined images and their affects. Affects are produced by the intra-action or intersection between bodies (such as makers and materials), and we have emphasised the importance of considering these intra-actions archaeologically. We examined gestures as having outcomes, affects and effects. We especially focused on the *châine opératoire* as an example of a gestural affect and effect; here affects and effects can be examined as components of networks as one gestural affect/effect inter-relates with the next. We examined miniaturisation, gigantism and scale, and paid attention to the cognitive and bodily affects produced by intra-acting with both miniature and gigantic art, artefacts and architecture. We discussed colour and light and the allure of viewing artefacts in different light sources: the shimmer and lustre of materials such as ivory. In our discussion of meaning, we argued that meaning was itself an affect born of intra-actions with matter. Finally, our discussion of assembly and disassembly highlighted the critical importance of assemblage and the affects achieved by bringing things together and sundering them apart. We utilised the notion of assemblage as a broader understanding of style, and we want to develop the notion of assemblage here as a means of understanding images themselves.

In this final chapter, we will develop two arguments: that images are themselves assemblages, and that image-making is a form of fabrication or world-making (see also Alberti 2012). Following on from this we will argue that 'art' is one

of the outcomes of this image-making process; the ability of artworks to affect, enchant or spread an aura around themselves (commented on by several previous authors including Walter Benjamin [1999] and Alfred Gell [1992; 1998]) is precisely an outcome of the process of composition and assemblage that occurs when an image is made. Let us begin by considering the image-as-assemblage.

To help us understand this, we turn to the philosopher of art Stephen Zepke (2005, 220) who states:

> This is the first condition of art, to break with the ontological and aesthetic assumptions that negate its life. In doing so, art emerges as a compositional process creating new realities, constructing a work that expresses a world, and expressing in a work the unending construction of the universe.

Plainly put, artists and makers see beyond the constraints of the world that they occupy in order to fashion new ontologies. They do this by creating works that have a dramatic or sensational impact on the viewer, altering their perception of reality. This is one of the clear points that we can chart archaeologically: we can observe distinct horizons or strata of change in the archaeological record. What makes art and imagery worthwhile as an object of study is the way in which the art and imagery of distinct periods offers an understanding of the experiences and perceptions of the inhabitants of particular time periods.

It would be wrong to assume that artworks simply reflect the perceptions, behaviours and cultural practices of a particular time period. This is precisely the kind of representational approach we have argued against throughout this book. Instead by examining the role of materials in art and image-making, we have come to realise that artworks are in fact works in process: they are works that are actively and materially involved in altering the experiences and perceptions of people.

Images are works of assemblage or composition: a bringing together, or intersection, of materials and sensations to achieve certain affects. The philosopher and artist Nicholas Bourriaud (2002) sees art as emerging in the intersection between the material and the cultural. He describes this process as a kind of 'relational aesthetics'. This act of intersection or assemblage holds the potential of creating something new: of fashioning a new ontology. By bringing together a heterogeneous group of materials, something new will be created. In her discussion of the Icelandic artist Margét Blöndal, the anthropologist Elizabeth Hodson (2017, 83) notes that Blöndal's drawing practice is 'hinged on forging a relation between things: a connection or movement between objects'.

To help us understand the significance of assemblages, cultural theorist Jane Bennett (2010, 20–38) argues that assemblages have an agency, an ability to act:

> Assemblages are not governed by any central head: no one materiality or type of material has sufficient competence to determine consistently the trajectory or impact of the group. The effects generated by an

> assemblage are, rather, emergent properties, emergent in that their ability to make something happen . . . is distinct from the sum of the vital force of each materiality considered alone.

Composing, or assembling, holds the potential then of creating something new or unique. Images have an impact precisely because they gather together new elements and hold them in relation to one another. This resonates with Tim Pauketat's (2013, 39) argument that historical processes are akin to a form of 'bundling' or assembling:

> We might also call it collecting, grouping, assembling, or gathering and imagine a broad range of such bundles: beads on a necklace, building blocks in a pyramid, objects in a dedicatory cache pit, foodstuffs in a root cellar, ingredients in a culinary dish, the clothing on one's body, the body itself, or the bones of a deceased individual. But depending on the strength and durability of the binding that holds the bundle together, the results can range from loosely to tightly wrapped entities, with more or less ability to affect the larger network of relationships . . . Of course, the reality is that bundling, as I describe it, is omnipresent. Every act, motion, practice, or experience bundles something.

We concur with this. One of the arguments of this book is that composing or assembling is a significant and emergent archaeological process. Furthermore, these assemblages are multi-temporal; they are composed of anachronistic bits and pieces cobbled together from different times and periods (Lucas 2015). The making of images is just one of these processes of assemblage, and assembling has an important effect: making new assemblages involves fashioning new things, making new ontologies, drawing our attention to something that has not been seen before. Images need not be thought of as one-, two-, three- or four-dimensional, they are in fact multi-dimensional assemblages. The images that we study and chart archaeologically are therefore compositions that manifest new ontological configurations. We don't so much study the reflection of past behaviours as study past interventions with the material world.

Accounting for monsters in Mesopotamia and Egypt

We have refrained from discussing long case studies in this chapter, however we will end with one final case study that exemplifies the processes of bundling, assembly and world-making that we have been discussing. In *The Origins of Monsters* David Wengrow (2013) discusses the appearance of depictions of composite beings (monsters), like griffins, sphinxes and dragons, in the imagery of the city states of Bronze Age Mesopotamia and Egypt.

While some images of composite beings are known from the Palaeolithic, Neolithic and pre-dynastic Egypt, naturalistic images of animals are much more

common. Strikingly, images of composite beings proliferate with the arrival of civilisation in Egypt, Mesopotamia and western Iran. This was especially the case in proto-dynastic Egypt where the appearance of serpent-necked felines and griffins (both with their origins in Mesopotamia or western Iran) occurs during the late fourth millennium BC. As Wengrow (2013, 62) remarks: 'Upon arrival, these imported composites, which had only recently made their debut on the floodplains of the Tigris and Euphrates, were accorded a central place in the emerging ideology of sacred kingship.' For example, depictions of composite creatures are found on the obverse of the Narmer Palette, where serpent-necked felines with intertwined necks are leashed (Figure 12.1). These images have been adapted from depictions on miniature cylinder seals. On the Narmer Palette, the necks of these monstrous felines form a protective rim around the grinding area of the palette 'where ritual substances were processed before being ingested or applied to the body' (Wengrow 2013, 62).

As the example above shows, depictions of composite beings appear to be promiscuous, leapfrogging from one cultural context to another. Why did this occur? The simple answer is: trade. As Wengrow (2013, 62) argues: 'In some cases, composite animals were initially introduced from neighbouring or more distant centres, passing along the same routes of transmission that brought metals, precious stones, and other commodities deployed locally in the legitimization of elite status.' But the mechanism by which this occurred is more interesting: 'An important factor in their dissemination was the use of carved seals to roll or impress complex images onto the clay closures of transport containers.'

These images of composite beings appear to be closely bound up with trade and accountancy. Both features also occur with the emergence of urbanism. Wengrow (2013, 68) expands on this set of relationships: 'Two closely related features of that transition [to urbanism] are especially germane to the development of composites: the overall standardization of material culture and the cultivation of new technologies based upon modular principles of assembly'. He charts the development of emerging standardisation in the village communities that preceded urban societies, but particularly notes that the use of cylinder seals to mark the clay closures of commodities was widely established by the fifth millennium BC in Mesopotamia. This process of standardisation and the use of imagery on cylinder seals intensifies with the emergence of urbanism. It seems that the invention of a novel repertoire of composite figures fits logically into the urban and bureaucratic world: 'Through the medium of sealing practices, miniature depiction remained closely tied to the practice of administration, which required the multiplication of standardized and clearly distinguishable signs for the official marking of commodities and documents' (Wengrow 2013, 71). In that sense, composite depictions encapsulated in visual form the 'bureaucratic imperative to confront the world, not as we ordinarily encounter it – made up of unique and sentient totalities – but as an imaginary realm made up of divisible subjects, each comprising a multitude of fissionable, commensurable, and re-combinable parts' (Wengrow 2013, 73).

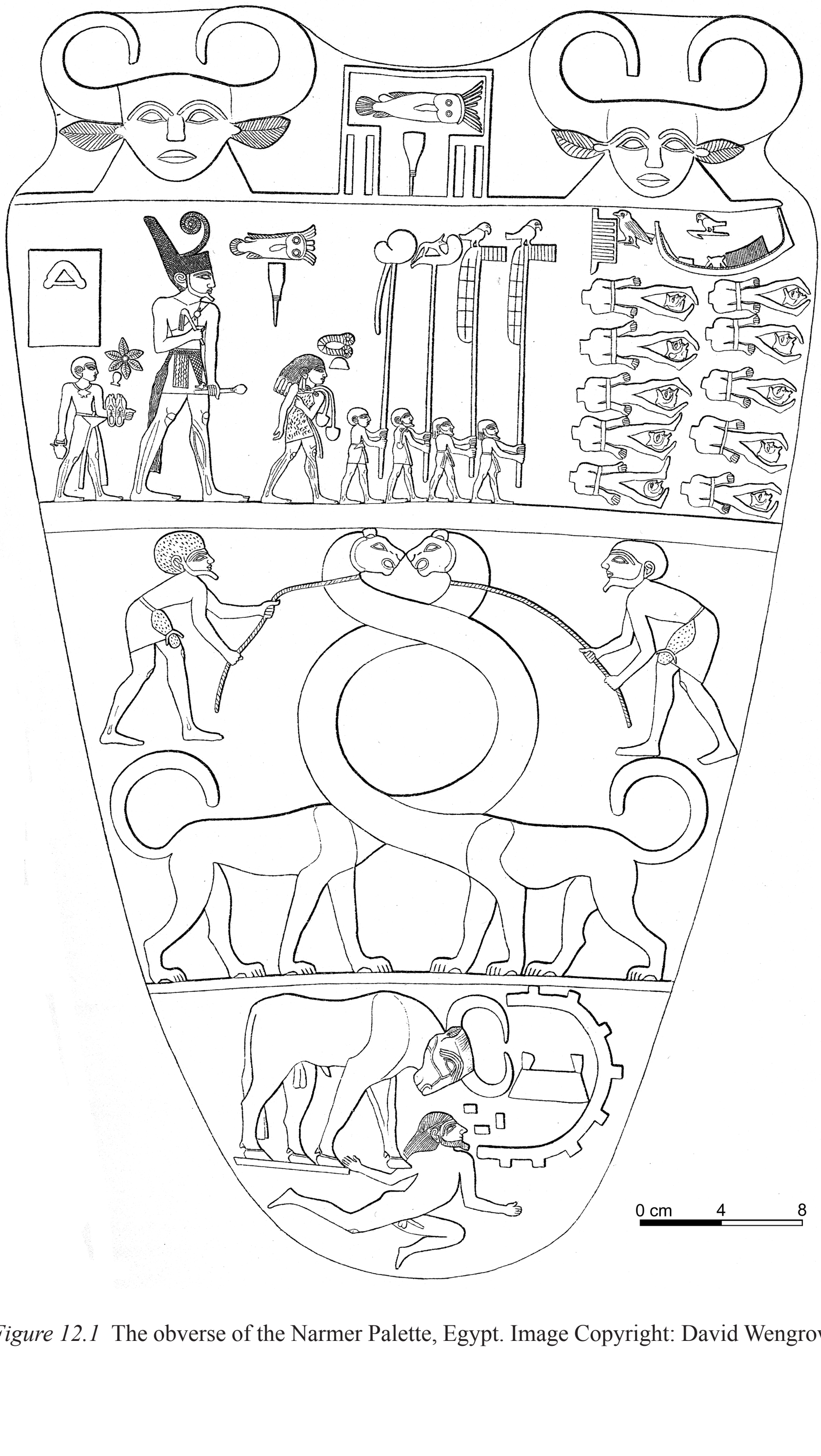


Figure 12.1 The obverse of the Narmer Palette, Egypt. Image Copyright: David Wengrow

David Wengrow presents a rich example of the kind of processes of assemblage and bundling that we have been discussing. From the outset, the imagery he discusses, of monsters or composite beings, are themselves assembled from the parts of different real-world animals. Added to this these depictions are carved on cylinder seals; in that sense, these depictions are bundled with commodities. Further than this, the requirement to distinguish and account for different commodities in trade is a circumstance of the circulation of goods between greater aggregations of people in urban communities. Because people aggregate (or bundle) in larger urban settings, they develop new systems of accountancy which require ever more refined methods of marking and distinguishing traded commodities. As such, ever more complex composite creatures are developed so as to distinguish by depiction between one marked commodity and another. We need not view this as a sequential set of outcomes, each following the other, rather these sets of circumstances are co-emergent; each is a component of a greater relational assemblage. The depiction of monsters in the early city states of Mesopotamia and Egypt also brings to the foreground another important point: that image-making is a process of assemblage that also produces new ontologies, new kinds of worlds. The depiction of novel creatures, monsters, in the imagery of Mesopotamia and Egypt is concurrent with the emergence of new kinds of human communities: cities. These new kinds of worlds entailed quite different ways of engaging with the world materially, and relating to each other socially.

Conclusion

We have grandly argued that the image-as-assemblage reconfigures realities, or makes new ontologies, new kinds of things. This sounds like a kind of magic. However, image-making is a process of *discovery*, a way of gathering together new things, and drawing our attention afresh to them. It is our contention that this is a powerful activity, which can have a dramatic impact, sensation or affect.

Yet is this always the case? The artist or maker struggles to achieve a singular affect, to make their artwork stand out from the many other average compositions. Are all images strikingly new compositions? Do all images have the same impact? Do they all create new ontologies? Simply fashioning something new is insufficient, for an artwork to stand out it 'must intervene in art as well as society, it must question the use of materials as well as the culture and situation of the work' (Sutton and Martin-Jones 2013, 78). This is what marks out artworks that achieve something fresh and new, that reconfigure the world.

One of the striking things about the archaeology of art is that the sensational and affective character of artworks still strike us millennia after their completion. One of the elements of distinctive artworks is that they draw together, nest or re-align other materials to present them in a new light. Our task as archaeologists is to understand these processes of material assembly and re-assembly, of different ways of achieving affects, and to understand how these affects continually help to achieve the creation of new realities. It is the ability of these

images-as-assemblages to achieve an impact that we think of as art. Understanding this process over the long term is key to an ‘archaeology of art’.

Coda

This book has diverged considerably from previous discussions of archaeological art. We have not given much attention to the usual topics discussed under the rubric of art: to representation, to aesthetics, to beauty or to identity. At times, the book has seemed to offer a manifesto for a new way of approaching the archaeology of art. In doing so, it is not our intention to negate or throw out the insights of representational accounts of archaeological art. We recognise that humans occupy worlds that are at once material, semiotic and discursive (or associated with materials, meaning, and language or culture). Material-based, social-based and cultural-based accounts are equally important. What is more interesting is how these different accounts intersect to offer us a richer picture of past human lives.

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